4.0 Past Year's Accomplishments (2012)

This fiscal year (FY) 2014 – 2023 TDP Annual Update, reports project data as of December 2012. Throughout 2012 MDT achieved a number of notable accomplishments that seek to improve customer convenience while also assuring the operation of an efficient, responsive, and financially sustainable transit system. These achievements are categorized as part of this TDP Annual Update according to the type of improvement related to service operations, capital investment, and passenger information/convenience.

4.1 Service Operations

4.1.1 New Bus Service Routes

Route 150 (Miami Beach Airport Flyer): On July 22, 2012 the Miami Beach Airport Flyer (Route 150) was realigned to serve the new MIA Metrorail station. This route provides connecting service from the Miami International Airport to Miami Beach and South Beach. Route 150 operates from 6:00 a.m. to 11:40 p.m. seven days a week. The cost to the rider is $2.35 per boarding

Route 200 (Cutler Bay Local): On September 5, 2012, the Cutler Bay Local (Route 200) was implemented to provide local circulator service within the Town of Cutler Bay. The Cutler Bay Local operates Monday, Wednesday and Friday, from 8:00 a.m. to 5:10 .pm. This route serves the following locations: Cutler Bay Town Hall, Social Security Office, South Miami-Dade Busway, South Dade Regional Library, South Dade Government Center, HealthSouth Rehab Hospital in Cutler Bay and residential neighborhoods. The cost to the rider is $0.25 per boarding.

Route 238 (Weekend Express): On November 25, 2012 Route 238 was implemented as a limited-stop express service that connects the Dolphin Mall and Miami International Mall with the Miami International Airport Metrorail Station. The Weekend Express service will operate every hour on weekends from 11:00 a.m. to 8:00 p.m. The cost to the rider is $2.35 per boarding.

Route 297 (27th Avenue Orange MAX): On July 22, 2012 Route 297 was implemented to provide a direct connection to the new Miami International Airport Metrorail Station from the Broward County line along NW 27th Avenue. The 27th Avenue Orange MAX will operate from 5:30 a.m. to 8:00 p.m. on weekdays only. Service will depart every 15 minutes during the morning and afternoon peak travel hours and 30 minutes during midday. The cost to the rider is $2.00 per boarding.

4.1.2 Bus Service Adjustments

A major initiative being undertaken by MDT is to improve Metrobus service efficiency through a restructuring of the Metrobus route system while minimizing the impact to customers. In December 2009, MDT implemented service route adjustments to improve overall service performance while maintaining existing service area coverage. The estimated transit operating cost savings as a result of this effort was approximately $12.3 million.

In 2012, this effort continued the improvements made in the July and December 2012 line-ups. The new modified grid system was based upon ridership data obtained from the Automated Passenger Counter (APC), Easy Card as well as coordination with local municipal transit

services and the Miami-Dade Metropolitan Planning Organization (MPO) to maximize interconnectivity and efficiency.

In November 2012, MDT issued notice-to-proceed to a consultant to begin work on the Transit Service Evaluation Study – Phase 2. The purpose of this project is to evaluate the current bus system of MDT, identify service efficiencies and design a grid-oriented route network. The results of this study will identify a service plan that maximizes the efficiency and effectiveness of the system. The final product will be a schedule-ready detailed plan which includes estimated impact on ridership, resources, and operating cost. The duration of the study is approximately three (3) months, which requires the study to be completed by February 2013.

4.1.3 Miami-Dade Transit Service Standards

Miami-Dade Transit established specific transit service standards for bus service to assess annual operational performance. Revised service standards were adopted by the Miami-Dade Board of County Commissioners in November 2009. MDT continues to implement route changes in accordance with service standards resulting in more efficiencies and lower operating costs. These service standards will be revised to coincide with the next TDP Major Update in 2014.

4.1.4 Municipal Circulators

Miami-Dade Transit continues to coordinate mass transit planning with the plans and programs of local municipalities in an effort to avoid duplication of transit services and allow for efficient transit operations that complement one another. There are currently 34 municipalities that are eligible to receive surtax funding with 33 participating in the program. (Indian Creek is not participating.) Funding expended of $60.7 million is the audited amounts and budgeted amounts for circulator and transit expenditures through FY 2011-2012. It includes direct operating and capital expenses for those municipalities operating circulators, and for those municipalities not directly operating a circulator it includes expenses for items that support transit in those areas such as bus shelters along MDT bus routes. The current 27 municipalities listed below either operate a circulator, partner with another municipality or partner with Miami-Dade Transit. The City of Miami trolley service was expanded during 2012 (after its launch in April) and the Town of Cutler Bay recently signed an Interlocal Agreement with Miami-Dade Transit to operate a circulator beginning in September 2013.

- City of Aventura
- Village of Bal Harbour
- Town of Bay Harbor Islands
- Village of Biscayne Park
- City of Coral Gables
- Town of Cutler Bay (ILA with Miami Dade Transit)
- City of Doral
- City of Hialeah
- City of Hialeah Gardens (ILA with the City of Hialeah)
- City of Homestead
- Town of Medley
- City of Miami
- City of Miami Beach (ILA with Miami Dade Transit)
- Town of Miami Lakes

- Miami Shores Village
- City of Miami Springs
- City of North Bay Village
- City of North Miami
- City of North Miami Beach
- City of Opa-Locka
- Village of Palmetto Bay
- Village of Pinecrest
- City of Sunny Isles Beach
- Town of Surfside
- City of Sweetwater
- Village of Virginia Gardens (ILA with the City of Miami Springs)
- City of West Miami

Ridership on these circulators now exceeds five (5) million passenger trips annually overall. The annual ridership of the six (6) largest circulator systems - Miami Beach, Coral Gables, Hialeah, North Miami, Aventura and Sunny Isles Beach - totaled 4,221,000 in 2011. It should be noted that many of the municipalities operating circulator systems exceed the 20% minimum surtax transit expenditure requirement. Appendix A.3 provides a listing of each municipality, respective service operator and website.

4.2 Capital Improvements

4.2.1 AirportLink Metrorail Extension

The AirportLink consists of a 2.4-mile extension of Metrorail that extends from the existing Earlington Heights Station at 2100 NW 41st Street along State Road 112 to the Miami Intermodal Center (MIC), the County's future central transportation hub next to the Miami International Airport (MIA). This project includes a multi-level station at the MIC featuring landscaping, an entry plaza and other passenger amenities.

The MIC serves as a central transfer point for Metrorail, Metrobus, Tri-Rail, Amtrak, Greyhound, tour buses, taxi cabs, and rental cars. An automated people mover is already in service, connecting the MIC to the MIA. This project provides residents and visitors with direct Metrorail access to MIA. With this project, Miami-Dade County joins the ranks of major metropolitan areas around the world with rapid transit connections to their airports. Total project cost is $506 million. The new Metrorail Orange Line began revenue service to the new MIA Metrorail Station on July 28, 2012. The contractor is currently completing warranty punch list items and the 180 day systems reliability and maintainability testing.

4.2.2 Metrobus New Vehicle Replacement

Miami-Dade Transit continues to implement its bus replacement program. Funding for this program was provided through various sources including the People's Transportation Plan (PTP), Florida Department of Transportation (FDOT) and Federal funding sources.

In August 2010, MDT took delivery of 13 40-foot diesel/electric hybrid buses for fleet replacement which were put into service in the fall of 2010. In addition, 25 60-foot diesel/electric hybrid buses are currently in service as of the summer 2010 – 16 are being used on the inter-county 95 Dade-Broward Express bus route and nine on the Kendall Cruiser bus route. MDT also took delivery of five 40-foot diesel/electric hybrids which were put into service in early 2011. However, MDT has not made a decision if it will continue to purchase diesel/electric hybrid, clean diesel, or other alternative fuel buses in the immediate future.

4.2.3 Metrorail New Vehicle Replacement

The Miami-Dade BCC and the Citizens' Independent Transportation Trust (CITT) in March 2008 approved the $401 million procurement of 136 new vehicles for replacing the existing fleet of vehicles. The existing vehicles will reach the end of their useful life of 30 years in 2014 before delivery of the new vehicles currently projected to commence in 2015. A Request for Proposals (RFP No. 654) was issued March 31, 2009. The new vehicles will feature the latest technologies applicable to rapid transit heavy rail vehicles including electric AC traction motors and inverter drives, roof mounted HVAC, bike racks, Wi-Fi, digital Passenger Information System (PIS) and many other technological advances which will significantly improve passenger comfort, efficient maintenance and operations. Car manufacturers Alstom, AnsaldoBreda, and CAF submitted proposals on September 25, 2009.

The MDT Project Team completed an evaluation of the proposals and negotiations with the two responsive proposers in August 2010. The Department of Procurement Management (DPM), a division of the Internal Services Department, completed its Responsibility Reviews and the then County Manager recommended AnsaldoBreda to the Board for contract award. A protest was filed by CAF against the Manager's award recommendation in February 2011. The protest was resolved by a hearing examiner in favor of the County in March 2011. CAF then filed an appeal to the FTA against the hearing examiners ruling and the FTA ruled in favor of CAF in November 2011 and issued instructions to the County to review the Best And Final Offer (BAFO) proposals for CAF and AnsaldoBreda and eliminate violations of FTA regulations regarding Geographical Preferences (FTA Circular 4220.1F).

The Mayor issued instructions to reconvene the Negotiating Committee in order to correct the violations of FTA regulations. The committee reconvened in December 2011 and reviewed the BAFO proposals and upheld their decision to award the Contract to AnsaldoBreda after all FTA issues were addressed. A revised memorandum from the Mayor recommending award to the selected car builder was filed with the Clerk of the Board in September 2012. The award recommendation was approved by the CITT in October 2012 and by the Board in November 2012. Notice to Proceed was issued December 2012 with delivery of vehicles to commence in the first quarter of 2015. The Contractor is working on the first phase of vehicle design.

4.2.4 Metromover New Vehicle Replacement

Miami-Dade Transit has completed the replacement of its original 12 Metromover cars. This has contributed to improved Metromover reliability and passenger comfort. Since implementation, Metromover cars now travel on average about 17.5 percent further before experiencing any mechanical failures. There has also been a decrease in the percentage of Metromover vehicles that were inoperable at any given time. In addition, another 17 vehicles

were ordered for Phase II of procurement for a total of 29 new vehicles. All of the 17 Phase II vehicles ordered have been received by MDT with 15 accepted and commissioned to revenue service. The remaining two (2) vehicles have been Safety Certified and are currently undergoing the 1,000 mile burn in test prior to final acceptance. The one-year warranty period for each vehicle commences after that vehicle passes the 1,000 mile test. Ten of the 17 Phase II vehicles have been delivered to MDT with the remaining seven (7) vehicles scheduled to be delivered to MDT by the end of January 2013.

4.2.5 ADA Pedestrian Improvements along the Busway

Miami-Dade Transit plans to implement ADA pedestrian improvements within a quarter (1/4) mile radius of bus stations along the South Miami-Dade Busway Phase I alignment to provide better accessibility. Infrastructure improvements include the construction of sidewalks, ramps and crosswalks. Phase I for the ADA Pedestrian Improvement project along the Busway Phase I is divided into three (3) parts.

Part I includes the following stations: SW 104th Street, SW 112th Street, SW 124th Street, Indigo Street, and SW 200th Street. Part I of the project is scheduled for completion in July 2014.

Part II includes the following stations: SW 117th Street, SW 136th Street, SW 152nd Street, SW 168th Street, and SW 173rd Street. Part II of the project is scheduled for completion in July 2014.

Part III includes the following stations: Dadeland South, SW 128th Street, SW 144th Street, SW 184th Street, and Marlin Road. Part III of the project is scheduled for completion in July 2014.

4.2.6 Palmetto Metrorail Station ADA Assessment

Miami-Dade Transit will construct station accessibility improvements at Palmetto Metrorail Station. The project consists of constructing a concrete sidewalk to provide accessibility between the station and the adjacent street sidewalks. The scope of work includes a new sidewalk, access ramps, speed humps, pedestrian crossing pavement markings, relocation and installation of signs and installation of green vinyl fencing. The project was completed in October 2012.

4.2.7 Lehman Yard Rehabilitation – Expansion Phase I

Miami-Dade Transit has proposed to construct five (5) storage tracks and two (2) Maintenance of Way (MOW) tracks at the existing Metrorail Lehman Center Facility. This expansion is necessary to provide the required storage and transition facility in support of the new 136 Metrorail vehicles scheduled for delivery in the first quarter of 2015. This project is scheduled for completion in July 2014.

4.2.8 Lehman Center Test Track

Miami-Dade Transit has proposed to construct a new test track (2,500 feet) at the existing Metrorail Lehman Center Facility. The test track will provide the necessary support for the existing and new Metrorail fleet of 136 vehicles to be delivered beginning in the first quarter of 2015. This project is scheduled for completion in July 2014.

4.2.9 Metrorail Central Control Upgrade

This project will update the existing Metrorail portion of the MDT Control Center replacing the existing 26 year old system and expanding it to handle the new Orange Line Metrorail Extensions.

This upgrade and expansion will ensure that switches and communications are automatically executed by the train control system for safe and reliable service operations for the Metrorail system. This project is scheduled for completion by July 2014.

4.2.10 Northeast Transit Hub Enhancements

Since determining that the Northeast Passenger Activity Center (NEPAC) project was no longer feasible, MDT identified an alternative project which includes transit hub improvements at two existing transit hubs – the Mall at NE 163rd Street and Aventura Mall. Both of these transit hubs serve the northeast portion of the County and are major destinations with important bus connections, but each has multiple deficiencies. The Northeast Transit Hub Enhancements (NETHE) will upgrade both transit hub sites to improve bus and passenger access as well as upgrade area drainage, lighting, signage, shelters and other station area amenities. The completion date for NETHE – 163rd Mall is estimated for June 2015 and for the NETHE – Aventura Mall is estimated for October 2015.

4.2.11 Pedestrian Overpass at University Metrorail Station

This project encompasses the construction of a Pedestrian Overpass over US-1/South Dixie Highway to serve the University Metrorail Station. This overpass is a low profile pedestrian bridge structure comprised of two vertical circulation towers providing access/egress to the pedestrian bridge that spans across US-1/South Dixie Highway. The project location is under review due to right-of-way challenges. This project is scheduled for completion by December 2014.

4.2.12 Systemwide Safety and Security Upgrades

Miami-Dade Transit has programmed funding to purchase security equipment to upgrade and install closed circuit camera television (CCTV) systems and its respective software components, and to continue the replacement of fire detection and reporting systems. MDT's commitment to the safety and security of the MDT system, patrons, and employees is of the highest of priorities. In an effort to further complement its existing security infrastructure, MDT continues to aggressively add state-of-the art technology to both reduce crime and to aid law enforcement in proactively securing and safeguarding the transit system. FDOT Rule 14-15.017(2.2.1), however, prevents MDT from disclosing these improvements/installations in greater detail.

4.2.13 Park-and-Ride Facilities

Parking Space Counters and Real-Time Dynamic Message signs at Metrorail Station Park-and-Ride Facilities: MDT proposes to provide real-time parking space counters and dynamic message signs at all Metrorail Station Park-and-Ride Facilities. MDT will implement this project incrementally starting with the larger and higher demand Metrorail parking facilities. This project will allow Metrorail customers to check real-time parking availability along with the estimated time of arrival of the next train approaching a particular station via the Internet, Smartphones, Personal Digital Assistants (PDAs), Tablets, and Electronic Signs. The following park-and-ride facilities have been selected for phase I implementation:

- Dadeland South;
- Dadeland North;

- South Miami;
- Earlington Heights; and
- Okeechobee.

The completion date for phase I implementation is December 2014.

NW 27th Avenue and NW 215th Street: A 14-acre vacant parcel adjacent to the intersection of the Turnpike and NW 27th Avenue has been identified as a strategic park-and-ride location for the NW 27th Avenue Enhanced Bus Service project. Up to 350 parking spaces are proposed for this facility which would serve the northern most station for new enhanced bus or BRT service in the corridor. This park-and-ride also provides strategic transit oriented development (TOD) opportunities. This facility is anticipated to open in late 2017.

SW 127th Avenue/Kendall Drive: MDT is planning to construct a 182 space park-and-ride lot on approximately 2.8 acres at the southeast corner of SW 88th Street and SW 127th Avenue. This park-and-ride facility will serve the Kendall Cruiser which began service in June 2010. The County is currently in negotiations with Florida Power and Light to lease the land. The completion date for this facility is estimated for November 2014.

SW 88th Street/Kendall Drive and SW 150th Avenue: On June 28, 2010, MDT opened a new 109 space park-and-ride lot to provide free, convenient parking for customers who commute using the Kendall Cruiser bus route. MDT is now pursuing the right-of-way acquisition, design, and construction of a park-and-ride directly adjacent to this location. The proposed park and ride facility will accommodate approximately 140 parking spaces, bus bays and bicycle racks. This project is the first step in the evolution of the Kendall Corridor toward BRT service and it establishes a model for premium transit corridor services. The completion date for this facility is estimated for May 2016.

South Miami-Dade Busway and SW 168th Street: For the last 10 years MDT had leased a 149 space parking lot adjacent to the Busway, located north of SW 168th Street and east of SW 97th Avenue. The lot is consistently filled to capacity. In April 2011, MDT purchased this existing 1.68-acre parking lot which includes fencing, landscaping, and lighting.

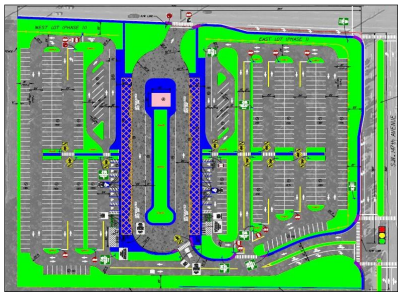
Quail Roost (Busway and SW 184th Street): MDT is pursuing the purchase of approximately three (3) acres of vacant property located adjacent to the Busway (between SW 184th Street and SW 186th Street) on which a park-and-ride facility is planned to be constructed. Up to 279 parking spaces and six (6) kiss and ride spaces are proposed for this facility. The facility will also include fencing, landscaping, lighting and a shelter for waiting passengers. It is anticipated that this facility will be completed in December 2015.

Busway and SW 344th Street (Florida City): Miami-Dade Transit is planning to build a 266 space parking lot with bus bays and shelters, to be located west of the southern end of the Busway between NW 2nd Avenue and NW 3rd Avenue at SW 344th Street (Palm Drive), in Florida City. MDT is currently in the final stages of land acquisition activities. Design and relocations are complete. Demolition of existing structures is in progress. The project's estimated completion date is October 2014.

Dolphin Station (HEFT and NW 12th Street): Property owned by the FDOT located adjacent to the intersection of the Homestead Extension of the Florida Turnpike (HEFT), SR 836 and NW 12th Street has been identified as a strategic location for a Transit Hub with a park-and-ride facility. This transit hub would support the SR 836 Express Enhanced Bus Service project and provide a potential terminus or stop for several local bus routes serving the Dolphin Mall and nearby cities of Sweetwater and Doral. This site will be further evaluated for its potential to support a Transit Oriented Development (TOD).

Douglas Road Metrorail Station Park-and-Ride Lot: MDT is planning to repair and restore the park-and-ride lot under the Metrorail guideway located just south of the Douglas Road Station. IRP Bond funding was identified to supplement the shortfall in the project budget. Negotiations are on-going with the Consultant to update the drawings to comply with the new Building Code and prepare construction documents to proceed with the procurement of a Contractor, for the Construction Phase.

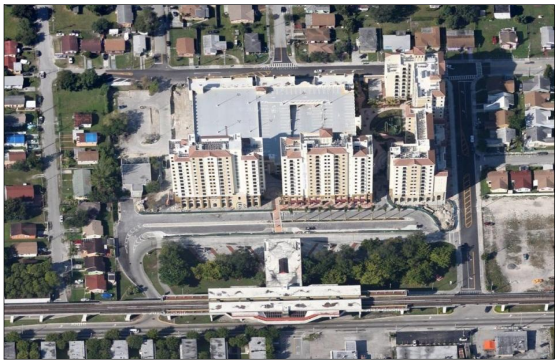
SW 8th Street and SW 147th Avenue: An 8-acre vacant parcel on the SW corner of the intersection at SW 8th Street and SW 147th Avenue has been identified as a strategic park-and-ride location for the SR 836 Express Enhanced Bus Service project. Up to 500 parking spaces are proposed for this facility which would serve the western most station for the new enhanced bus or BRT service in the corridor.



This park-and-ride lot also provides strategic TOD opportunities. The estimated completion date late 2017.

4.2.14 Current Transit Joint Development and Transit Oriented Development Projects

Brownsville Metrorail Station: On June 23, 2010, MDT broke ground for the construction of the Brownsville Transit Village, a 5.8-acre, joint-development project next to the Brownsville Metrorail station. The project is being built in five phases, each geared toward providing housing for workforce families, the elderly and the entire Brownsville community. The project will include approximately 445 workforce housing units, with five (5) mid-rise apartment buildings, townhomes and a 706 space parking garage with 100 spaces reserved for transit patrons and the balance reserved for residents and retail customers. Ground-floor commercial space and Metrorail station improvements, such as an additional passenger drop-off lane and attractive landscaping are also planned.



Brownsville Transit Village residents will benefit from immediate access to Metrorail and amenities such as a community center, a computer lab and an exercise room. In addition, onsite community programs will offer literacy training, health and nutrition classes, and first-time homebuyer seminars. The project is scheduled for completion in April 2013.

NW 7th Avenue Transit Village (NW 7th Avenue and NW 62nd Street): This proposed MDT joint development project is expected to provide opportunities for an enhanced transit facility within the context of an active, mixed-use development including space for housing, community-serving activities and functions in addition to retail use. This project includes 25 park-and-ride spaces. MDT has completed the right-of-way acquisition and the relocation process is nearly complete. The project is scheduled for completion in August 2015.

Brickell Citicentre: Brickell Citicentre is a 4.7 million square foot, 10 acre, $1.1 billion commercial mixed-use project being developed by Swire Properties in the Brickell area along South Miami Avenue between SE 6th Street and SE 8th Street. As a result of the agreements awarded to the developer, a portion of a multi-level condominium parking garage will be constructed on a small vacant parcel of transit property and the development will be totally integrated into the Eighth Street Metromover Station. The developer is planning to provide direct access to the station at the ground level and to construct a third level "sky lobby" over the station which will also provide direct access from the development into the station. The developer will also construct enhanced and additional elevator and escalator access into the station and provide enhanced landscaping on Metromover property within the development. All of these improvements will also be maintained by the developer.

Palmer Lake: On June 2, 2009 the Board of County Commissioners passed Resolution 728-09 requesting a charrette area plan study for the area bounded by the Miami River on the north and east, NW 37th Avenue on the west and the Tamiami Canal on the south. The area is immediately east of the new MIC and in close proximity to the MIA. As a result of the charrette process a plan containing recommendations for the future development of this area has been developed. The Board of County Commissioners adopted these recommendations on May 1, 2012 which will form the basis of future land use policy development for the area. MDT acquired approximately three (3) acres of property within the study area for the construction of the AirportLink, the extension of Metrorail connecting the Earlington Heights Station to the MIC. Only a small portion of the property was needed for the placement of Metrorail columns. Recommended uses for the remaining MDT property include a water taxi terminal, police station, a cargo shipping facility and/or use as public waterfront access and park area.

Okeechobee Metrorail Station: Approximately four (4) acres of MDT property immediately adjacent to the Okeechobee Metrorail Station has been transferred to the Public Housing and Community Development Department (PHCD). That department is in the process of negotiating a 99-year ground lease with the City of Hialeah. The City is planning to construct an affordable senior housing development on the property containing approximately 100 units of affordable senior housing with some incidental retail space.

Northside Metrorail Station: MDT property adjacent to the Northside Metrorail Station containing approximately 3.3 acres was also transferred to the PHCD. A developer has been selected for a joint development project as a result of an Invitation to Negotiate process. The proposed development is a four phase development with two family and two senior developments consisting of approximately 438 total units of 1, 2, 3, and 4 bedroom units and approximately 20,000 square feet of retail/commercial space with a total estimated development cost of $88.1 million. The development will contain a total of 598 parking spaces of which 250 will be dedicated for the exclusive use of transit patrons.

Senator Villas: The County is in the process of issuing a Request for Proposals (RFP) for the long- term lease and development this site located on SW 40th Street between SW 89th Avenue

and SW 89th Court. The RFP anticipates the development of a 23 unit affordable senior housing apartment building with a small transit park-and-ride lot.

NW 215th Street Project: A 14 acre parcel of property located at the southwest quadrant of the intersection of NW 27th Avenue and NW 215th Street was purchased by Miami-Dade County. The County has completed a study to cultivate recommendations for the development of this property. The recommendations include development of a transit terminal adjacent to NW 27th Avenue. Enhanced bus service along the NW 27th Avenue corridor is planned to be implemented in conjunction with the construction of the terminal which will include bus bays with passenger shelters and a park and ride lot. The study recommends that the remaining property be designated as a Community Urban Center (CUC) which calls for moderate to high-intensity, mixed use development. Such development may contain institutional, office and retail in an environment that encourages pedestrian activity with a defined, transit oriented center.

Caribbean Boulevard: MDT property located on Caribbean Boulevard and US-1 adjacent to the Busway was transferred to the Public Housing and Community Development Department. As a result of an Invitation to Negotiate process a developer has been selected for this property. The developer has proposed a multi-phase, mixed-use high-rise and mid-rise development of approximately 170 affordable housing units with approximately 12,500 square feet of retail/commercial space. The development will also include a parking garage with 255 parking spaces, with 150 of the spaces dedicated for the Busway patrons. The total estimated development cost is $46.1 million.

South Miami-Dade Busway and SW 296thStreet: The County will be issuing a Request for Proposals (RFP) for a long term lease for development of this site as a Transit Oriented Development (TOD). The northernmost portion of the site is improved with an existing park-and-ride facility that contains 140 parking spaces to serve Busway patrons. The proposed development of this site will not affect the existing park-and-ride use already established on the property. Rather, the proposed joint development project is expected to enhance the Busway and existing park-and-ride facility by introducing a commercial component to this site which will provide amenities for transit patrons and focus density around the station.

4.2.15 Future Transit Joint Development and Transit Oriented Development Projects

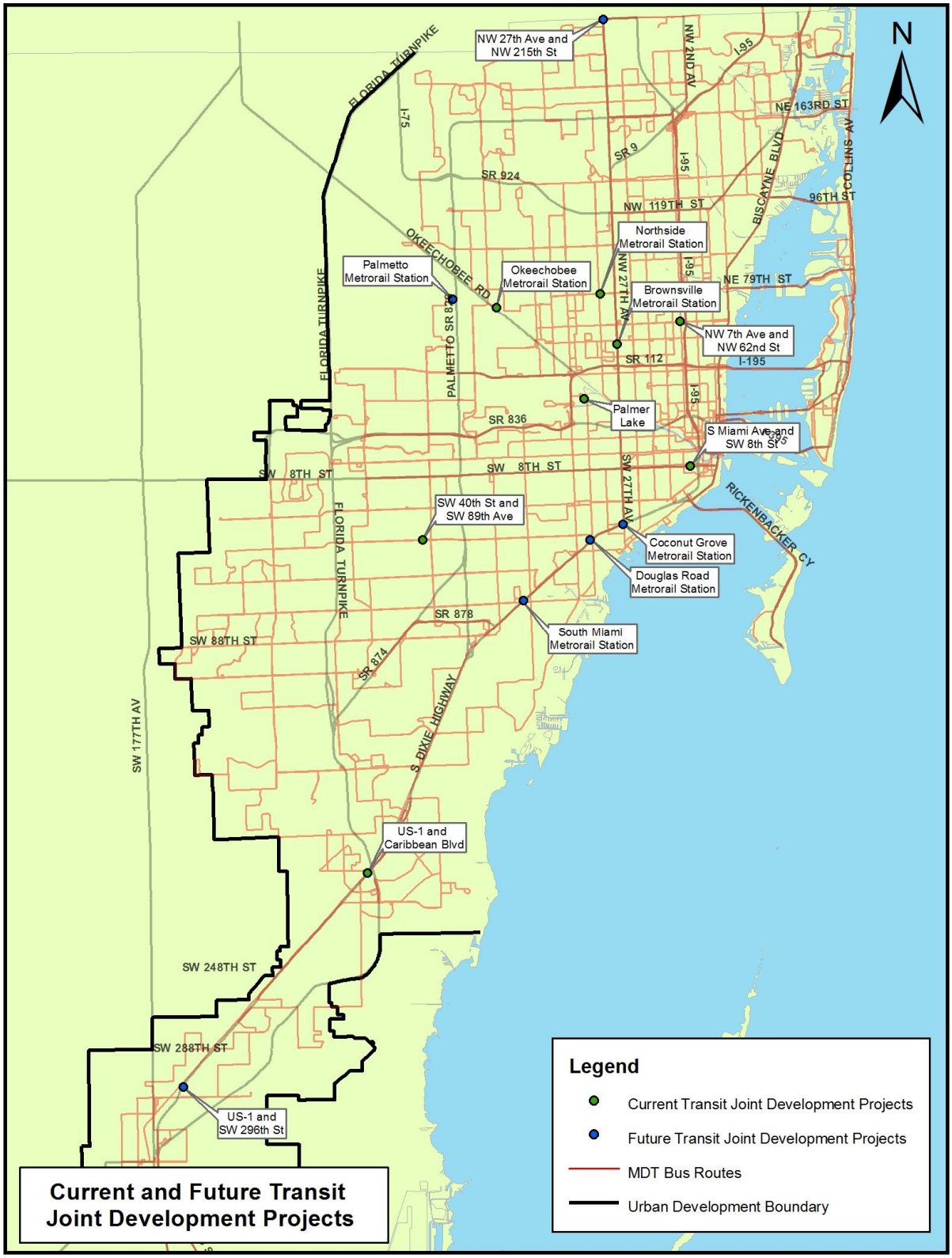
It is anticipated that Miami-Dade County will pursue joint development opportunities at Douglas Road, Palmetto, Coconut Grove and South Miami Metrorail Stations as well as at other locations in the future (Figure 4-1).

4.2.16 Infrastructure Renewal Projects (IRP)

Dadeland South Intermodal Station: The Dadeland South Intermodal Station project includes facility improvements to the parking garage, roadways, signage, fencing, painting, landscaping, canopy, escalators, and lighting up-grades. The project is in final design. The estimated completion date is March 2014.

Secondary Guiderails for Bus Washes: This project includes the installation of secondary guide rails in the bus washes at the Central, Northeast and Coral Way Bus Facilities.

Figure 4-1: Current and Future Transit Joint Development Projects



Source: Miami-Dade Transit, 2012

Roller style guides were not utilized. Compatibility with all MDT buses is the function of the primary guiderail, the secondary guiderails are installed for safety purposes and to protect the wash components. Final inspections have been issued to all sites with PE certifications on May 11, 2012 and the project is now complete.

Parking Garage Fire Suppression: Miami-Dade Transit will perform repairs to the fire protection systems for parking garages at Dadeland South, Dadeland North, Earlington Heights, and Okeechobee Metrorail stations. These repairs include the replacement of all sprinkler heads, flow switches, tamper switches, gate valves, inspector test flow valve assemblies, and various sections of sprinkler piping. The project is scheduled for completion in May 2014.

Roof Repair for Bus Garages: Miami-Dade Transit plans to furnish and install new roofing at the Central Bus Garages and Offices and to have the air conditioning and fan roof curbs resealed and insulated. The scope of work is in the process of being revised to match allocated funds. The project is scheduled for completion in April 2015.

Bus Garage Plumbing Improvements: The original scope of work for the project includes renovation of existing bathrooms at the Central Bus Facility, Procurement Office, Materials Management, Fuel Island and Warranty Administration. The project scope is being redefined to match available funding. Currently, the primary project is the renovation of the existing bathrooms at the Central Bus Facility OEI Building 2nd Floor. The project is scheduled for completion in July 2014.

Replace Air Compressors at Bus Locations: Miami-Dade Transit is planning to replace air compressors at all bus garages through the purchase, removal, and installation of new air compressors, air dryers, receiver tanks and necessary piping at Central, Coral Way and Northeast Bus Garage Facilities. The project may have to be re-scoped to match available funds. The project is scheduled for completion in January 2013.

4.2.16.1 ARRA Funded Projects

Palmetto Station Traction Power Sub Station: This will be a Design/Build procurement to install a new Traction Power Sub Station at the existing Palmetto Metrorail station. This implementation is necessary to provide the required minimum higher 600 Volts Direct Current (VDC) for the 136 new Metrorail vehicles starting delivery in 2015. The present system provides lesser voltage at the Palmetto station and will not be able to operate new vehicles. The Planning, Pre-Design and Engineering has been completed. The project is scheduled for completion in July 2013.

Metromover Bicentennial Park Station Rehabilitation: The construction of a new Museum facility adjacent to this station will foster the reopening of the station for service. The scope of work to reopen this station includes: the rehabilitation of the elevator and escalators, replacement of lamps throughout the station, replacement of aluminum ceiling slats with new support system at ground level, repair of the communication system, replacement of stair metal plates, testing of electrical circuits to assure proper function, new fire cabinets and ancillary devices, replacement of floor tiles, repair of cracks at exterior walls, painting and landscaping. Construction is scheduled for completion in March 2013.

Metrorail Track and Guideway Refurbishment and Mainline Turnout Replacement: This includes the replacement of 25 mainline turnouts. This will include the #10 Rail Bound Manganese frog, set of insulated plates, ties, concrete, and train control cables. The Metrorail

system is over 27 years old; the frogs are the critical point of the mainline turnouts. These frogs have been welded and rebuilt countless times. They are a primary reason for noise issues in residential areas that are adjacent to the crossovers. The new frogs with new composite ties and insulated plates will reduce noise by 50 percent (50%) as well as increase the safety of the system. The installation of frogs began in July 2010 and the project was completed in September 2012.

Metromover Inner/Downtown Loop Stations Escalator Replacement and New Canopies: The scope of work consists of the preparation of a complete set of biddable documents and construction work required for the installation of canopy covers over the existing escalators/stairs at the following seven (7) Metromover stations: Government Center station, Miami Avenue station, Bayfront Park station, First Street station, College Bayside station, College North station and Wilkie D. Ferguson Jr. Station. The scope of work also includes replacement of the existing escalators at the aforementioned locations. The primary function of these canopies is to provide passengers weather protection on stairs and escalators at Metromover stations. The project is scheduled for completion in March 2013.

Transit Operations System Replacement Project: The Transit Operations System (TOS) is over 20 years old and at the end of its life cycle with numerous software limitations. This project replaces the current manual processes of Miami-Dade Transit's mission-critical Operator Workforce Management System, with state-of-the-art technology, automating critical operational functions: operator bidding, dispatching, work assignment, bus availability, time keeping and operator performance management.

The new system will interface with other MDT systems including: fixed-route scheduling system, Automated Fare Collection-Smart card system, Miami-Dade County Payroll System, Computer-Aided Dispatch/Automated Vehicle Location System (CAD/AVL), Enterprise Asset Management System (EAMS), Random Drug and Alcohol Substance Abuse System, Disciplinary Action Reporting System and the Automatic Passenger Counter (APC) system. This new system will greatly improve line-up timing and process as well as significantly improve bus and rail operational effectiveness and efficiencies by reducing labor costs and increasing data accuracy. The Notice to Proceed was issued on March 25, 2013, with anticipated completion June 2014.

Metromover Fiber Optic Cable Replacement: The replacement of fiber optic cable equipment throughout the Metromover system at all stations and at Central Control has been scheduled for implementation in September 2013. The installation of Giga-Bit Ethernet and wireless networking capability at all stations is also included in the scope of work. The scope of work was modified based on a revised estimate for the Programmable Logic Controller (PLC) replacement portion of the project. The objective is to include the cost of the PLC within the available ARRA Grant allocation. The project is scheduled for completion in August 2013.

Metromover Closed Circuit Television Camera Replacement and Installation: MDT has set forth the installation of new digital cameras at all Metromover Station platforms with Network Video Recorders (NVR) for independent 24/7 recording. The new recorders will be networked into the MDT Video System and new digital displays will be installed at the Mover Central Control. The project is scheduled for completion in August 2013.

Existing Metrorail Stations (Part 2A) Graphics and Signage Retrofit: The project requires the selected Design-Build firm to furnish, install and test a complete way finding signage and

graphics system for 10 existing Metrorail Stations and the new Metrorail station at the MIC, in accordance with contract documents and industry standards. Also, included are all required materials to furnish signage, all equipment, labor, services, and all incidental items required to complete the work, as per the contract documents. Part 1 of this project was completed under a separate contract. The construction completion date is scheduled for May 2013.

ARRA Municipalities – Homestead, Miami Lakes and North Miami (Group A): The purchase and installation of bus shelters and/or enhancements for the following municipalities: Homestead (12 units), Miami Lakes (11 units) and North Miami (20 units). The project was completed in November 2012.

Miami Gardens / ADA Pedestrian Improvements at SW 160th Street and South Miami-Dade Busway (Group B): The purchase and installation of bus shelters for the City of Miami Gardens. Ten (10) crosswalks will be installed at the South Bay Station located at the South Miami-Dade Busway Station within a quarter mile radius. Scope of Work enhancements will include the new installation and repair to existing sidewalk ramp, ADA crosswalks, ADA curbs, shelter benches and trash cans. The project is scheduled for completion in April 2013.

ARRA Municipalities – Bay Harbor, El Portal, North Miami Beach, Surfside, Florida City, Opa-Locka, Doral, Miami Shores, Miami Springs, North Bay Village, and Palmetto Bay (Group C): The purchase and installation of bus shelters and/or enhancements. The project is scheduled for completion in July 2013.

ARRA Municipalities – City of South Miami, City of Aventura and Village of Virginia Gardens: The purchase and installation of bus shelters and/or enhancements for the following municipalities: City of South Miami (2 units), City of Aventura (2 units) and Village of Virginia Gardens (1 unit). The project was completed in May 2012.

4.3 Customer Information/Convenience

The Marketing Division is recognized as one of the top Marketing groups in Florida. In 2012, they were the recipients of the Florida Public Transportation Association (FPTA) Best In Class award for Sustaining Campaigns, Special Events and Communications & Website for Save at the Pump Campaign.

4.3.1 Corporate Discount Program

Miami-Dade Transit's Corporate Discount Program (CDP) allows participants to save on commuting costs through group discounts and pre-tax savings, by purchasing public transportation through a tax deduction from their employer under IRS Code 132(f). It allows employees to pay for their public transit rides using pre-tax dollars, up to $240 per month ($2,880/year). The CDP provides monthly transit passes on Corporate EASY Cards, good for a month of unlimited rides on Metrobus and Metrorail, at a 10 percent (10%) discount for groups of 4-99 participants, and a 15 percent (15%) discount for groups of 100+ participants. In 2012, the CDP generated over $10.2 million in revue. The program currently has over 202 participants.

4.3.2 College/Vocation School Discount Program

College, university, vocational/technical and adult education school students can purchase a one-month pass on an Orange EASY Ticket for $50. Half the costs of a full price monthly pass. This

program is offered to full time students using MDT's public transportation system to get to school. There are over 42 active schools participating in the program generating over $5.2 million in annual sales.

4.3.3 K-12 Discount Program

Miami-Dade County students in grades K-12 can ride Metrobus and Metrorail at 50 percent (50%) off the regular fare. Eligible students need to obtain a specially encoded EASY Card at the Transit Service Center Kiosk located on the second floor of the Stephen P. Clark Center located at 111 NW 1st Street. The cost for the card is $2.00 and the student is required to fill out a registration form. The card is then assigned to the student. This program is open to any student attending school in Miami-Dade County.

4.3.4 EASY Card Sales Outlets

EASY Card Sales Outlets were established in 2009 when MDT changed to the EASY Card fare media system. The Outlets are in convenient locations throughout Miami-Dade County for transit customers to obtain or load cash value and/or passes onto the EASY Card or EASY Ticket. The Metrorail Monthly Parking Permits are also available at select outlets. Marketing is responsible for training new vendors and maintaining over 100 EASY Card Sales Outlets providing MDT with an average of $6 million in revenue a year.

4.3.5 Golden Passport Office

The Golden Passport EASY Card provides free transportation to senior's citizens 65 years and over, or a Social Security beneficiary who are permanent Miami-Dade resident. Currently, there are 198,042 certified Golden Passport/Patriot Passport customer accounts; this includes 142,420 Golden Passport over 65 years of age, 48,148 Golden Passport under 65 years of age and 7,474 Patriot Passport customers.

4.3.6 Transit Disadvantaged Program

The Transportation Disadvantaged Program (TDP), through a State Funded Grant provides transit passes on a monthly basis to social service agencies that service transportation disadvantaged (disabled, poor, homeless, children and adults at risk, unemployment training) residents of Miami-Dade County. The purpose of the TDP is to provide EASY Tickets to qualifying agencies to distribute to their clients for use on Miami-Dade County transit system. Currently there are 91 agencies enrolled in the program.

4.3.7 Wireless Service on Rail and Bus Vehicles/Electronic Signage Information System

In February 2011, MDT implemented free wireless services in all Metrorail and Metromover vehicles, plus 133 buses on Express Routes (as of June/2011, 100% implemented). The rest of the bus fleet will be equipped with WiFi devices as funding becomes available.

As a complement to this initiative, free public Wi-Fi is also being phased in at all Metrorail Stations through the Electronic Signage Information System (ESIS) project. Electronic signs installed on the Metrorail station platforms provide passengers with real-time arrival times, emergency information, elevator/escalator status, route detours, special events and other important announcements in an ADA-compliant format so that all transit passengers are kept informed of changes to their daily commutes and schedules.

The first electronic signs were installed at the Miami International Airport and Earlington Heights stations and became operational in July 2012, along with the opening of the Orange Line. All 23 Metrorail station signs are targeted to be installed by September 2013. There are also electronic kiosks located at the Hialeah, Northside, Allapattah, Civic Center, Brickell and Douglas Road stations providing real time information and other passenger amenities like trip planning.

4.3.8 Smartphone Mobile Application (iPhone and Android)

In September 2011, MDT deployed the "Mover Tracker" a free downloadable application ("app") in the Apple store, which provides real-time accurate Metrorail arrival/departure and Metrobus/Metromover route and schedule information. In August 2012, MDT deployed a similar free downloadable "app" for the Android platform. Both mobile applications provide MDT passengers with everything that is currently present on the MDT mobile web site as well as additional smart phone specific features in the form of an app to include: rider alerts; Train Tracker; Bus Tracker; service updates; elevator/escalator operational status; Metrobus schedules and routes; Metrorail station information; Metromover station information; fare information; rider alerts registration; contact numbers; feedback zone; Where Am I?; and Live Mapping. By developing these apps, MDT ensures that riders have the most up-to-date and accurate transit service information free of charge.

4.3.9 CAD/AVL System Replacement

MDT plans full implementation of the Bus Tracker System / Computer Aided Dispatch/Automated Vehicle Locator (CAD/AVL) technology project by replacing the infrastructure, on-board equipment, back-office and communications hardware and software – the systems currently used to manage and monitor the transit fleet. The project will facilitate delivery of real time bus predictive arrival/departure via Web, to mobile devices and Electronic signs, using the County's satellite/radio technologies. Upgrading and replacing this infrastructure will greatly improve managing and dispatching the transit fleet by providing real time Bus Bunching, Service performance, Vehicle diagnosis, on demand or subscription alerts; enabling remote video look in and on-board PA announcements; and centralized incident management. Full implementation is targeted to be completed by June 2015.

4.3.10 Transit Signal Priority (TSP)

Through integration with the County's Advanced Traffic Management System (ATMS), major corridors and vehicles will be equipped with Transit Signal Prioritization (TSP) technology which enables communication with each of the traffic signal controllers along major corridors. TSP facilitates improved on-time performance in bus services. Implementation will be completed by June 2015.

4.3.11 Electronic Transit Rider Alert System / Train Tracker / Mover Tracker

Miami-Dade Transit continues to implement customer convenience enhancements to their Rider Alert system that notifies passengers about transit service delays. Registered users receive electronic alerts on detours, route changes, and updates for Metrobus as well as service interruptions for Metrorail, Metromover, Metrobus and Special Transportation Services. The Rider Alert system also provides the operational status of Metrorail or Metromover station elevators and escalators. Customers must sign-up to receive these electronic alerts to their cellular phones, email addresses, text pagers, and Blackberry devices or smart phones.

Train Tracker was developed utilizing all in-house resources. A Train Tracker pilot displaying next train arrival times, was launched in 2007 with a display at the Government Center station. The subsequent production level of the Train Tracker service launched in 2008 is 100% implemented and allows users to see, via the web and on mobile devices, the estimated time of arrival of the next train. The software application also provides other useful transit information such as service alerts, rail and mover station information and elevator/escalator status. In July 2012, Train Tracker was updated to incorporate the new orange line to the Miami International Airport station arrival information. The next train information is now incorporated in the Electronic Signage Information System (ESIS).

By the end of July 2013, MDT will deploy a real-time Metromover Tracker System, "Mover Tracker", using the same web-based technology and available via computer desktops, cell phones/smart phones, personal digital assistants (PDAs) and tablets.

4.3.12 MDT Website Redesign

Miami-Dade Transit recently redesigned its website (www.miamidade.gov/transit) with a new streamlined look and more user-friendly design to make it easier for transit passengers to find transit service information. The new website design features large color-coded icons for easy navigation of information about Metrobus, Metrorail, Metromover and STS services. Basic subject headers with more detailed topic dropdown lists, as well as universal headers letting users link back to Miami-Dade County's main web portal and other department websites, are found at the top of every page.

The new home page now features popular interactive rider tools like the Google-powered automated transit Trip Planner; Train Tracker for next-train arrival times; and Service Updates, including bus detours and changes to the Metrorail or Metromover schedule. MDT's website is also now mobile-enabled for smart phone users.

4.4 Monitoring Program to Track Annual Performance of MDT Services

The preparation of the FY 2010 – 2019 TDP Major Update resulted in the development of eight (8) major goals, each with various objectives and corresponding measures. The monitoring of previous results against current measures will validate MDT's attainment of these goals. This TDP Annual Update provides MDT an opportunity to report results for each major goal according to the objectives and corresponding evaluation measures for which data is available to support. These measures are the Key Performance Indicators (KPI) that will be evaluated annually, using the most recent twelve-month period for which data is available. The evaluation compares the current values of productivity standards versus those from the previous year. A few examples include:

- Performance measures such as On-Time Performance (OTP) and Mean Distance between Failures (MDBF) reflecting transit reliability are monitored monthly on the Active Strategy Enterprise (ASE) Scorecard.
- Review transit routes to ensure service is provided within a ¼ mile of major trip generators.
- Automated Fare Collection data to monitor ridership by route.
- Alignment of capital projects to goals.
- Public involvement events to disseminate transit information and promote transit usage.

In 2012, the Miami-Dade MPO performed a Transit Service Evaluation Study that developed an on-going performance monitoring program that could be utilized by MDT.

4.4.1 Goal 1: Improve the Quality of Transit Services

Objective: Improve the accessibility to major health care, recreation, education, employment cultural and social services facilities: Transit service miles providing connections to major medical, educational, and recreational facilities were evaluated. In the future this measure will also evaluate cultural and social service facilities. Approximately 61 transit service route miles operate within a ¼ mile of major medical facilities while more than 135 transit service miles operate within ½ mile of all colleges and universities within Miami-Dade County. This has remained virtually unchanged from the previous year.

Objective: Improve transit level of service on major roadway corridors and between major origins and destinations: This objective is measured according to the MDT Service Standards which describe the process utilized by MDT to evaluate level of service route performance to achieve the goal of improving transit level of services on key alignments and between key origin and destination pairs.

Objective: Maximize service reliability and efficiency: The on-time performance for the various MDT transit modes are provided in Table 4-1. Metrorail has excellent on-time performance of about 97 percent (97%) and continues to exceed the Agency goal of 95 percent (95%). Metrobus operates at 79 percent (79%) on-time performance, which is a good result given the congested traffic conditions under which most of the routes operate, in many corridors throughout the day, as well as the high load factors on many of the routes. On-time performance for Metrobus also exceeds the agency goal of 75 percent (75%).

Table 4-1: MDT Annual On-Time Performance

	On-Time Performance	
	Metrorail	**Metrobus**
FY 2011-2012	97.2%	79.5%
FY 2010-2011	95.8%	81.1%
Goal	95%	75%

Source: Miami-Dade Transit, December 2012 (Also includes first quarter of FY2012-2013)

Objective: Maximize multimodal travel options and provide travel choices: Miami-Dade Transit continues to implement an initiative to operate more efficient bus service through a grid operational network of service routes. The resulting bus adjustments that occurred in July and November 2012 attribute to a decrease in Metrobus route miles as presented in Table 4-2.

Table 4-2: Number of Transit Route Miles by Transit Mode

Transit Mode	**Route Miles**	
	2011	**2012**
Metrorail	22.4	24.8
Metrobus	2,593	2,582
Metromover	4.4	4.4

Source: National Transit Database, Miami-Dade Transit, Revised FY 2012 Working Data

Objective: Fill transit service coverage gaps: Transit-supportive areas include zero car households, low income households, and population 65+ propensity areas.

The number of miles of MDT bus routes within the transit-supportive service areas (Figure 4-2) is approximately more than 700 miles. This is virtually unchanged from last year's measure.

Objective: Promote transit reliability: One method to measure transit reliability is through annual systemwide ridership. MDT will be able to further improve upon existing ridership through the provision of efficient transit service that improves transit travel time and on-time performance. During the past fiscal year MDT, in total, as shown in Table 4-3 experienced an increase in ridership of approximately three percent (3%).

Table 4-3: MDT Systemwide Boardings

Transit Mode	Annual Boardings (000's)	
	FY2010-2011	FY2011-2012
Metrorail	18,134	18,706
Metrobus	75,723	77,828
Metromover	9,167	9,102

Source: National Transit Database, Miami-Dade Transit, Revised FY 2012 Working Data

MDT's system offers stations along the Metrorail and Metromover system, and bus stops, shelters and benches along Metrobus routes. Table 4-4 shows bus stops and station spacing. MDT's standard calls for an average of five (5) stops per mile for local bus. This would indicate a slightly more frequent spacing of stops, on average, than five (5) stops per mile (about one stop every 1,000 feet).

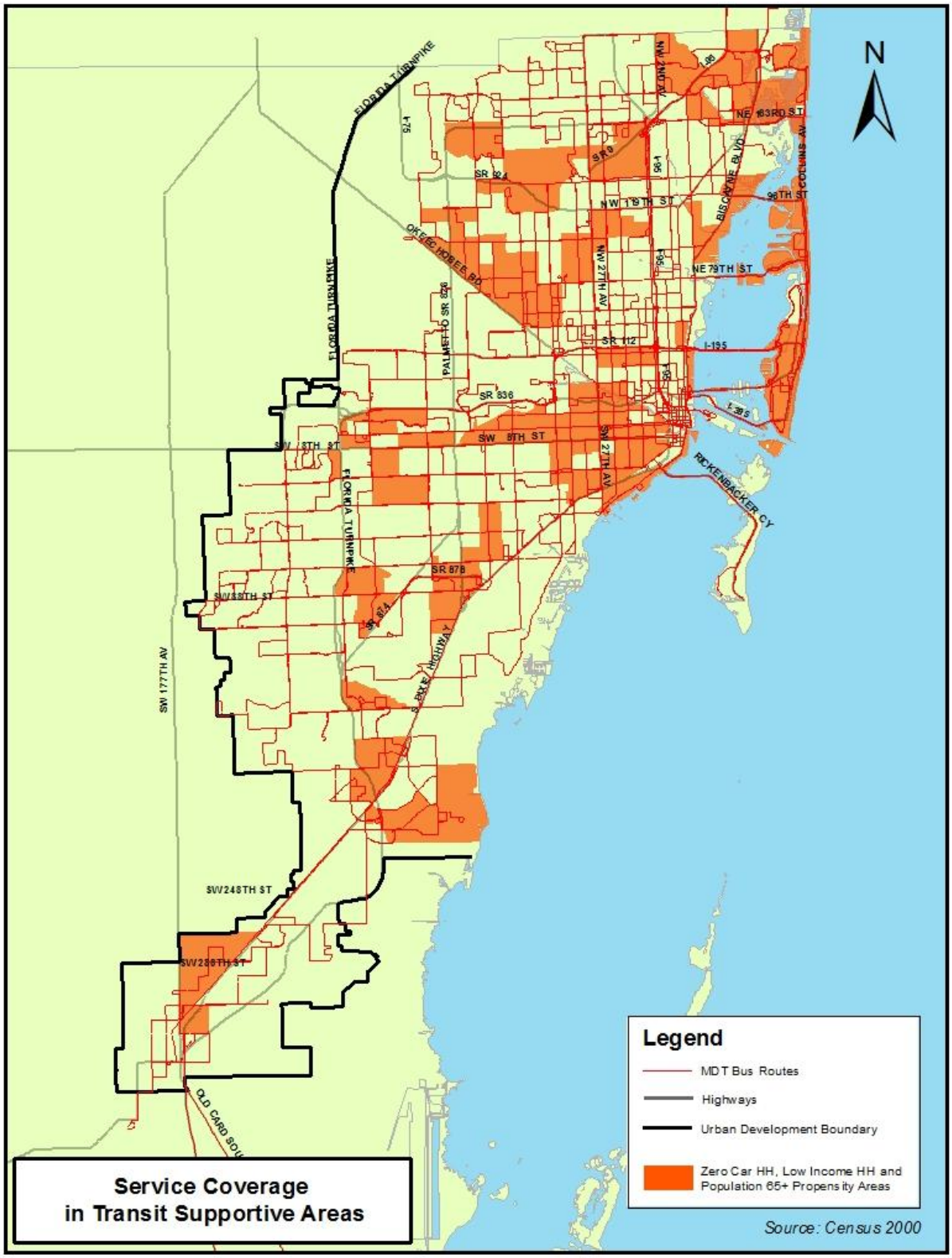
More detailed analysis is being conducted by MDT to adjust stop spacing depending on the type of service being provided, thus increasing the efficiency of each bus route.

Table 4-4: Number of Station Stops Per Route Mile

Mode	Number of Stations/Stops	Total Route Miles	Stations/Stops per Route Mile
Metrorail	23	24.8	.93
Metromover	20	4.4	4.55
Metrobus	8,828	2,582	3.42

Source: National Transit Database, Miami-Dade Transit, Revised FY 2012 Working Data

Figure 4-2: Service Coverage in Transit Supportive Areas



Source: Miami-Dade Transit, December 2012

Objective: Improve transportation facilities' and services' regional connectivity: Table 4-5 shows the number of transit route miles (including miles of overlapping bus service) in corridors of regional significance. These corridors of regional significance are identified as urban principal arterials according to the Functional Classification file from the Florida Department of Transportation Statistics Office. As the table indicates, MDT provides high concentrations of service on South Dixie Highway (the Busway), Interstate-95, A1A, Biscayne Boulevard, and NW 27th Avenue.

Table 4-5: Transit Route Miles in Corridors of Regional Significance

Corridors of Regional Significance	Transit Service Route Miles in Corridor
South Dixie Highway / US-1 (SR 5)	188
Interstate-95 (SR 9A)*	162
Collins Avenue (SR A1A)	128
Biscayne Boulevard / US-1 (SR 5)	120
NW 27th Avenue (SR 9 & SR 817)	124
Le Jeune Road / NW 42nd Avenue / SR 953	74
Kendall Drive / SW 88th Street (SR 94)	70
Airport Expressway (SR 112)*	67
Florida's Turnpike (HEFT) (SR 821)*	68
Palmetto Expressway (SR 826)*	62
NE 163rd Street / Sunny Isles Blvd	55
McArthur Causeway / Interstate-395	55
Tamiami Trail / SW 8th Street (SR 90)	53
NW 41st Street / NW 36th Street (SR 948)	51
Julia Tuttle Causeway / Interstate-195 / (SR 112)*	46
Kennedy Causeway / NE 79th Street Causeway / (SR 934)	37
Dolphin Expressway (SR 836)*	48
W 49th Street / NW 103rd Street (SR 932)	30
Bird Road / SW 40th Street (SR 976)	27
Okeechobee Road (SR 25)	25
Don Shula Expressway (SR 874)*	22
Snapper Creek Expressway (SR 878)*	21
SW 152nd Street / Coral Reef Drive (SR 992)	21
NW 119th Street / Gratigny Pkwy (SR 924)	21
Krome Avenue / SW 177th Avenue (SR 997)	21
Rickenbacker Causeway (SR 913)	17
SW 137th Avenue (SR 825)	17
W 4th Avenue / NW 57th Avenue / Red Road (SR 823)	15
William Lehman Causeway / NE 192nd Street (SR 856)	15
Interstate-75 (SR 93)	1
NW 2nd Avenue / US 441 (SR 7)	73

Source: Miami-Dade County GIS files, 2012

* Non-stop Metrobus service miles along limited access highways.

Objective: Include provisions for non-motorized modes in new projects and in reconstructions: Provisions that support non-motorized modes of transportation are included in the land use and transportation elements of the Miami-Dade County Comprehensive Development Master Plan (CDMP). Future capital improvements shall also seek to integrate non-motorized infrastructure upon the implementation of new transit services.

Metrorail Bike Path Improvements (M-PATH) – SW 67th Avenue to the Miami River: MDT is moving forward with infrastructure repairs and improvements to enhance the safety and performance for the M-Path users. The rehabilitation project consists of repairs to the asphalt and concrete surfaces, installation of traffic and way finding signs, installation of crosswalk pavement markings, pedestrian signals and other safety improvements in accordance with the M-Path Master Plan. The completion date is scheduled for May 2014.

Metrorail Bike Path Improvements (M-PATH) – Dadeland South to SW 67th Avenue: Miami-Dade Transit designed and constructed a 10-foot wide bike path along the Metrorail Corridor to connect with the existing bike path from SW 67th Avenue to the Snapper Creek Canal and from the Dadeland North Metrorail station to the Dadeland South Metrorail station. Some of the improvements include the construction of a bicycle and pedestrian bridge, as well as the installation of lighting, signage and fencing.

MDT also completed the rehabilitation of approximately eight (8) miles of asphalt and concrete surfaces running within MDT's right-of-way under the existing elevated Metrorail Guideway. The M-Path was also extended by one mile. These improvements were completed in April 2012 and have enhanced cyclists' riding experience.

Objective: Improve transit services that provide access to educational facilities: The number of transit service route miles within a ½ mile of colleges and universities throughout Miami-Dade County is approximately 135 miles. All of the major colleges and universities located within Miami-Dade County are served by transit service within a ¼ mile of their campuses. This has remained unchanged since last year's TDP Annual Update.

4.4.2 Goal 2: Improve Customer Convenience, Comfort and Safety on Transit Service and within Facilities

Objective: Improve safety on vehicle service operations: MDT regularly assesses operational safety for workers and passengers according to level of investment and compliance of regularly updated safety plan. As part of MDT's Infrastructure Renewal Program, safety projects are evaluated and prioritized for implementation on an annual basis.

Objective: Reduce roadway and multi-modal crashes: The goal that MDT has set forth for the reduction of the number of accidents is 3.77 per 100,000 miles. In FY 2012, MDT reported that the number of accidents was 3.05 accidents per 100,000 miles of transit service. This represents a 19 percent (19%) improvement over the set goal.

Objective: Enhance outreach opportunities to educate the community on transportation issues and highlight transit service benefits such as service reliability, passenger cost savings, and environmental benefits: MDT continually seeks to educate the public as well as provide opportunities for public input through various public outreach strategies. MDT is active in attending civic and community events and meetings to continually inform the public about MDT services. In addition, MDT uses various forms of media (e.g., internet, radio and televised advertisements, news paper ads, etc.,) for public outreach.

Objective: Maintain convenient, clean, safe transit passenger facilities and vehicles: The MDT fleet was involved in 1.31 preventable accidents per 100,000 miles for FY 2012, which is 13 percent (13%) below the MDT goal of 1.50 accidents per 100,000 miles.

4.4.3 Goal 3: Increase the Security of Transit Vehicles and Facilities

Objective: Ensure transit vehicles and facilities provide a secure environment for customers: The total number of active video cameras systemwide is 789. Upon completion of future projects the MDT video surveillance system will consist of 956 active cameras.

Objective: Increase security at transit stops and intermodal stations and connections: For 2012, the number of criminal incidents on-board transit has been reduced from the previous year by 1.5 percent (1.5%).

4.4.4 Goal 4: Support Economic Vitality

Objective: Provide transit access to urban centers at a minimum of 30-minutes during the peak: Table 4-6 lists urban centers as identified in the CDMP Land Use Element that were evaluated to determine the amount of transit service within ¼ mile. Downtown Miami has the highest concentration of transit service as evident from the operation of Metrorail, Metromover and Metrobus providing service coverage throughout the entire downtown area. This includes 57 route miles with a ¼ mile of the Downtown area. Dadeland has a more focused center of activity with direct connections from Metrorail and the South Miami-Dade Busway which results in thirty-one route miles within a ¼ mile. The regional activity center at NW 107th Avenue and NW 12th Street has approximately nine transit route miles within a ¼ mile. This is consistent as to what was reported in the TDP Major Update.

Table 4-6: Transit Route Miles within ¼ mile of Urban Centers

Regional Activity Centers	Transit Service Route Miles within 1/4 mile
Downtown Miami CBD	57.7
Dadeland	30.2
Southland Mall	23.8
Aventura Mall	20.4
NW 107th Avenue and NW 12th Street	11.0
Westland Mall	4.2

Source: Miami-Dade GIS, 2012

Objective: Enhance major tourist travel and access opportunities within the Urban Development Boundary: Table 4-7 shows the number of miles of transit service that operates within close proximity to various tourist attractions in Miami-Dade County. As the table indicates, most of the attractions have transit service. However, a number of locations have relatively little service, including such diverse attractions as the Venetian Pool and the Miami Seaquariam. In many cases, the locations of these attractions in outlying areas of the County do not lend themselves to extensive transit connections, and most are located along one or two routes that operate on an adjacent arterial street, rather than being in the center of a hub of transit service (such as in downtown Miami or Miami Beach). Analysis measuring the adequacy of transit services continues to be conducted to identify major trip generators and major attractors in Miami-Dade County.

Table 4-7 through Table 4-12 presents the transit services provided for each identified major trip generator in terms of number of routes and accessibility of these facilities. Furthermore, maps that illustrate the locations of these attractors are provided according to the type of major trip generator presented in each of the following tables.

Table 4-7: MDT Major Trip Generators: Tourist Attractions and Special Attractors, December 2012

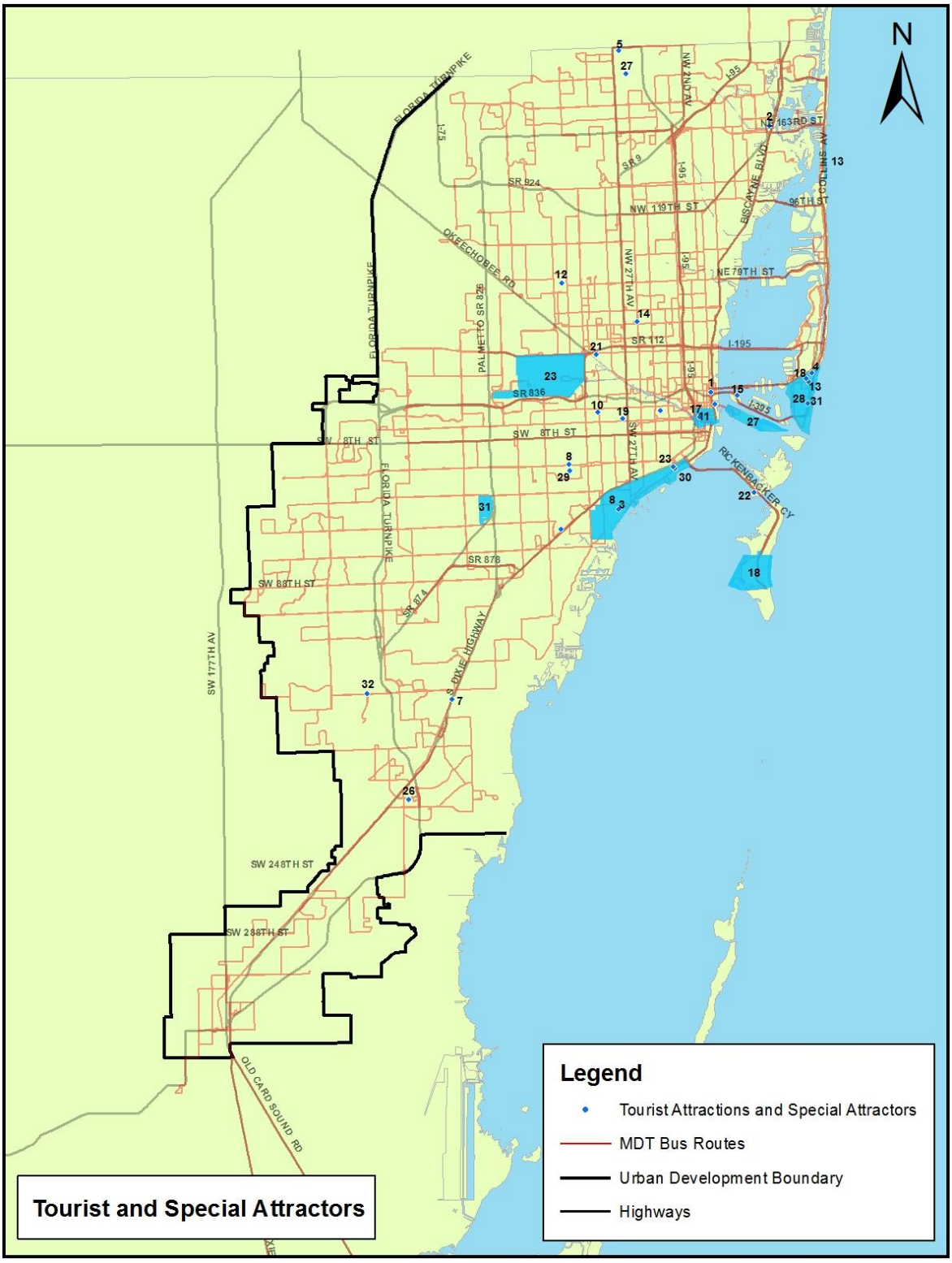
ID	MAJOR GENERATORS	ROUTES					COMMENTS
	Special Attractors						
1	Adrienne Arsht Center	A 6 93	C 9 95	M 10 120	S 16 Mover	3 32	Service on local roadways
2	American Airlines Arena	C 95	S 120	3	9	93	Service on local roadways
		7	8	211	243		Service on adjacent roadways
3	The Cloisters of the Ancient Spanish Monastery	3	93				Service on local roadways
4	Bank United Center	48	56	500	Rail		Service on adjacent roadways and within walking distance of University station
5	Barnacle Histroic State Park	48	249				Service on local roadways
6	Bass Museum of Art	103 150	112	113	119	123	Service on adjacent roadways
		115	117				Service on local roadways
7	Calder Race Course/Casino	99	27	297			Service on adjacent roadways
8	Coconut Grove	6	22	27	48	249	Service on local roadways
9	Coral Castle	34	38	70			Service on local roadway and the Busway
10	Coral Gables Merrick House	24					Service on adjacent roadway
11	Downtown Miami	C 7 24 120 243 Mover	S 8 51 195 246 Rail	2 9 77 207 277	3 11 93 208 500	6 21 95 211	Service on local roadways and within walking distance of Government Center and Historic Overtown/Lyric Theatre stations and various Metromover stations
12	Flagler Kennel Club-Magic City Casino	6	7	37	238		Service on adjacent roadways
13	Haulover Beach	H	S	120			Service on adjacent roadway
14	Hialeah Race Track	L Rail	29	37	54	135	Service on local roadways
15	Fillmore Miami Beach at the Jackie Gleason Theater	A 115	C 117	L 120	M 123	S 150	Service on local roadways
16	Joseph Caleb Community Center	22	46	54	246	254	Service on local roadways
17	Jungle Island/Miami Children's Museum	C	M	S	120		Service on local roadways
18	Key Biscayne	B					Service on adjacent roadways
	Marlins Park	7	12	17			Service on adjacent roadways
19		6	11	51	208		Service on local roadways
20	Miami Art Museum	C 7 24 120 243 Mover	S 8 51 195 246 Rail	2 9 77 207 277	3 11 93 208 500	6 21 95 211	Service on local roadways and within walking distance of Government Center Station and various Metromover stations
21	Miami Beach Convention Center	C A 117	120 L 123	150 M	S	115	Service on local roadways Serivce on adjacent roadways
22	Miami-Dade County Auditorium	11 27	51				Service on adjacent roadway Service on local roadway
23	Miami International Airport	J 150	7 238	37 297	42	57	Routes restructured to serve MIC; from MIC use MIA Mover to access Airport
		133					Shuttle to Tri-Rail Sation serves Airport directly
24	Miami Jai-Alai	J	36	37			Service on adjacent roadway

Table 4-7: MDT Major Trip Generators: Tourist Attractions and Special Attractors, December 2012 (continued)

ID	MAJOR GENERATORS	ROUTES	COMMENTS
	Special Attractors		
25	Museum of Science	12 48	Service on adjacent roadway
		17 24	Service on local roadway
		Rail	Located within walking distance from Vizcaya station
26	PortMiami	243	On-site service via local roadways
27	South Beach	A C L M S 120 123 150	Service on local roadways
28	South Miami-Dade Cultural Arts Center	1 31 35 38 52 70 137 200	Service on adjacent roadways
29	Sunlife Stadium	27 99 297	Service on adjacent roadways
30	Tropical Park	40 56	Service on adjacent roadways
31	Venetian Pool	24	Service on local roadway
32	Vizcaya	12 17 24 48	Service on adjacent roadway
		Rail	Located within walking distance from Vizcaya station
33	The Wolfsonian - FIU Museum	C M 120	Service on adjacent roadway
34	Zoo Miami	252	On-site service to entrance

Source: Miami-Dade Transit, 2012
Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

Figure 4-3: MDT Major Trip Generators: Tourist Attractions and Special Attractors, December 2012



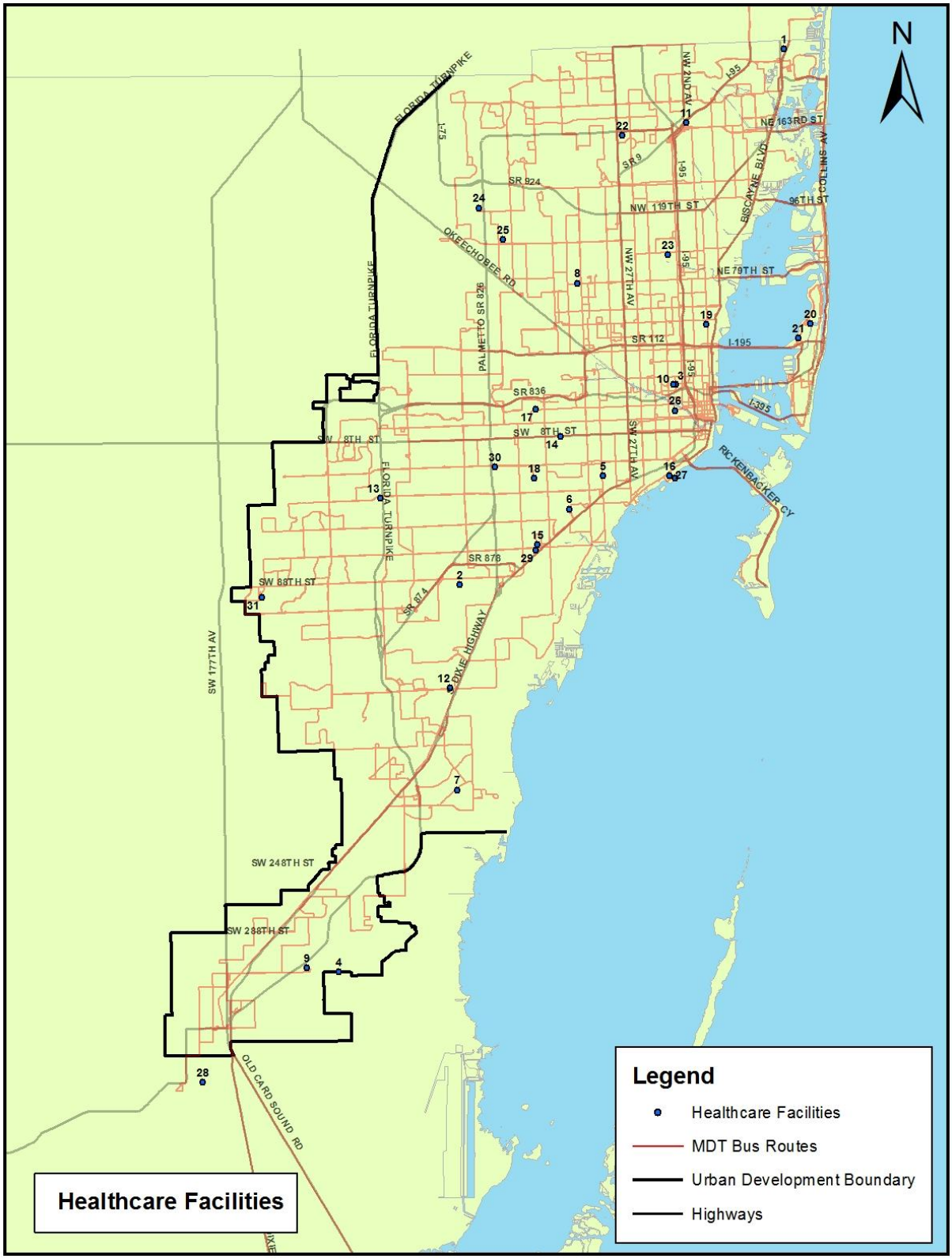
Source: Miami-Dade Transit, December 2012

Table 4-8: MDT Major Trip Generators: Healthcare Facilities, December 2012

ID	MAJOR GENERATORS	ROUTES					COMMENTS
	Health Care Facilites						
1	Aventura Hospital	E					Service on adjacent roadway
2	Baptist Hospital	88	104				Service on adjacent roadways
3	Bascom Palmer Eye Institue/Ann Bates Leach Eye Hospital	M	21	Rail			Service on adjacent roadways and within walking distance from Civic Center station
		12	32	77	95	246	Service on local roadways
		277					
4	Community Health Center of South Dade	35	52	70	287		On-site service and service on adjacent roadways
5	Coral Gables Hospital	37					Service on adjacent roadways
6	Doctors' Hospital	56					Service on adjacent roadway
7	HealthSouth Rehabilitation Hospital	70	200				Service on adjacent roadway
8	Hialeah Hospital	L	42	135	Rail		Service on adjacent roadways
9	Homestead Hospital (Baptist)	35					Service on adjacent roadway
10	Jackson Memorial / U.M. / V.A. Hospital	M	12	21			Service on adjacent roadways and within walking distance from Civic Center station
		32	95	246	Rail		
11	Jackson North Medical Center	E	2	22	246		Service on adjacent roadways
12	Jackson South Community Hospital	31	34	38	52	57	Service on adjacent roadway
		252	287				
13	Kendall Regional Medical Center	40					Service on adjacent roadway
14	Kindred Hospital South Florida - Coral Gables	8					Service on adjacent roadway
15	Larkin Community Hospital	37	72				Service on adjacent roadway
		57	Rail				Service on local roadways
16	Mercy Hospital	12	48				On-site service with shelters
17	Metropolitan Hospital of Miami	7					Service on adjacent roadway
		238					Service on local roadway
18	Miami Children's Hospital	56					On-site service with shelters
19	Miami Jewish Home & Hospital for the Aged	2	9	10	202		Service on adjacent roadway
		54					Service on local roadway
20	Miami Heart Institute	115	117				Service on adjacent roadway
21	Mount Sinai Medical Center	C	M	115	117		On-site service
		62	J	150			Service on adjacent roadway
22	North Dade Health Center	G					On-site service
		17	22	27	246		Service on local roadways
23	North Shore Medical Center	33	77	277			Service on adjacent roadways
24	Palmetto General Hospital	29					On-site service with shelters
25	Palm Springs General Hospital	33	54				On-site service with shelters
		29	73				Service on adjacent roadways
26	Selected Speciality Hospital	7					Service on adjacent roadway
		12	211				Service on local roadway
27	Sister Emmanuel Hospital	12	48				On-site service with shelters
28	South Florida Evaluation & Treatment Center	77	277				Service on adjacent roadway
29	South Miami Hospital	37	57	72	500	Rail	Service on adjacent roadways and within walking distance from South Miami station
30	Westchester General Hospital	24					Service on adjacent roadway
31	West Kendall Baptist Hospital	72	88	104	204	272	Service on adjacent roadway
		288					

Source: Miami-Dade Transit, 2012
Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

Figure 4-4: MDT Major Trip Generators: Healthcare Facilities, December 2012



Source: Miami-Dade Transit, December 2012

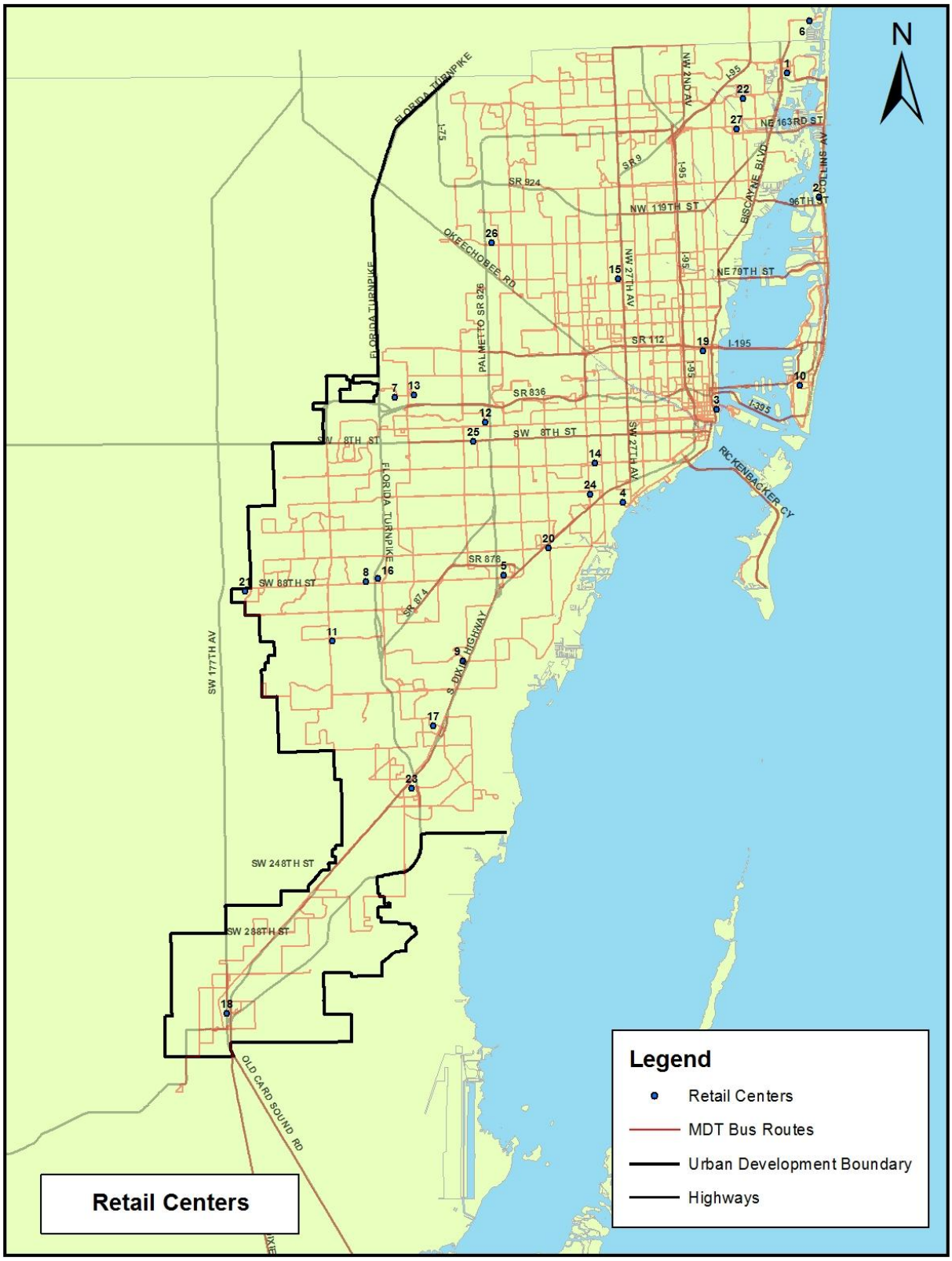
Table 4-9: MDT Major Trip Generators: Retail Centers, December 2012

ID	MAJOR GENERATORS	ROUTES					COMMENTS
	Retail Centers						
1	Aventura Mall	E 99	S 120	3 183	9	93	On-site service
2	Bal Harbour Shops	G	H	S	120		Service on adjacent roadways
3	Bayside Market Place	C 243	S Mover	3	93	95	Service on adjacent roadways and the Mover
4	Coco Walk/ Mayfair in the Grove	37	48	249			Service on adjacent roadways
5	Dadeland Mall	52 204	73 272	87 288	88 500	104 Rail	Service on adjacent roadways. Pedestrian walkway to Dadeland North station
6	Diplomat Mall	E					Service on adjacent roadway
7	Dolphin Mall	7	36	71	137	238	On-site terminal with shelters
8	Kendall Village	88	288				Service on adjacent roadway
9	(The) Falls	31 252	34 287	38	52	136	Service on adjacent roadway and at Busway Station at SW 136 Street
10	Lincoln Road Mall	A 115	C 117	L 120	M 123	S 150	Service on adjacent roadways
11	London Square	136	137				Service on adjacent roadways
12	Mall of the Americas	7	11	51	87		On-site service with shelters
13	Miami International Mall	7	36	71	137	238	Service on adjacent roadways
14	Miracle Mile	24	37	42	56		Service on adjacent roadways
15	Northside Shopping Plaza	L 79	12 97	21 Rail	27	32	On-site and adjacent roadway service
16	Palms at Town and Country	56	88	288			Service on adjacent roadways
17	Perrine Plaza	1	52				Service on adjacent roadways
		31	34	38	Busway		Located within walking distance of the Busway (park & ride lot at SW 168 St.)
18	Florida Keys Outlet Center	70	344				Adjacent roadway service
19	Shops at Midtown Miami	9	10				Service on local roadways
		J	36				Adjacent roadway service
20	Shops at Sunset Place	37	57	72	500	Rail	On-site and adjacent roadway service
21	Shops at Paradise Lake	104 (Wknd)	204				Service on adjacent roadways
22	Skylake Mall	H	9	10	183		Service on adjacent roadways
23	Southland Mall	1 52	31 70	35 137	38 200		Service on adjacent roadways
24	Village at Merrick Park	37 249	40 500	42 Rail	48	136	Service on adjacent roadways and within walking distance of Douglas Road station
25	Westchester Shopping Center	8	24	87			Service on adjacent roadways
26	Westland Mall	29	33	54			Service on adjacent roadways
27	163rd Street Mall	E 10 246	H 16	2 19	3 22	9 75	Service on adjacent roadways and off-site terminal

Source: Miami-Dade Transit, 2012

Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

Figure 4-5: MDT Major Trip Generators: Retail Centers, December 2012



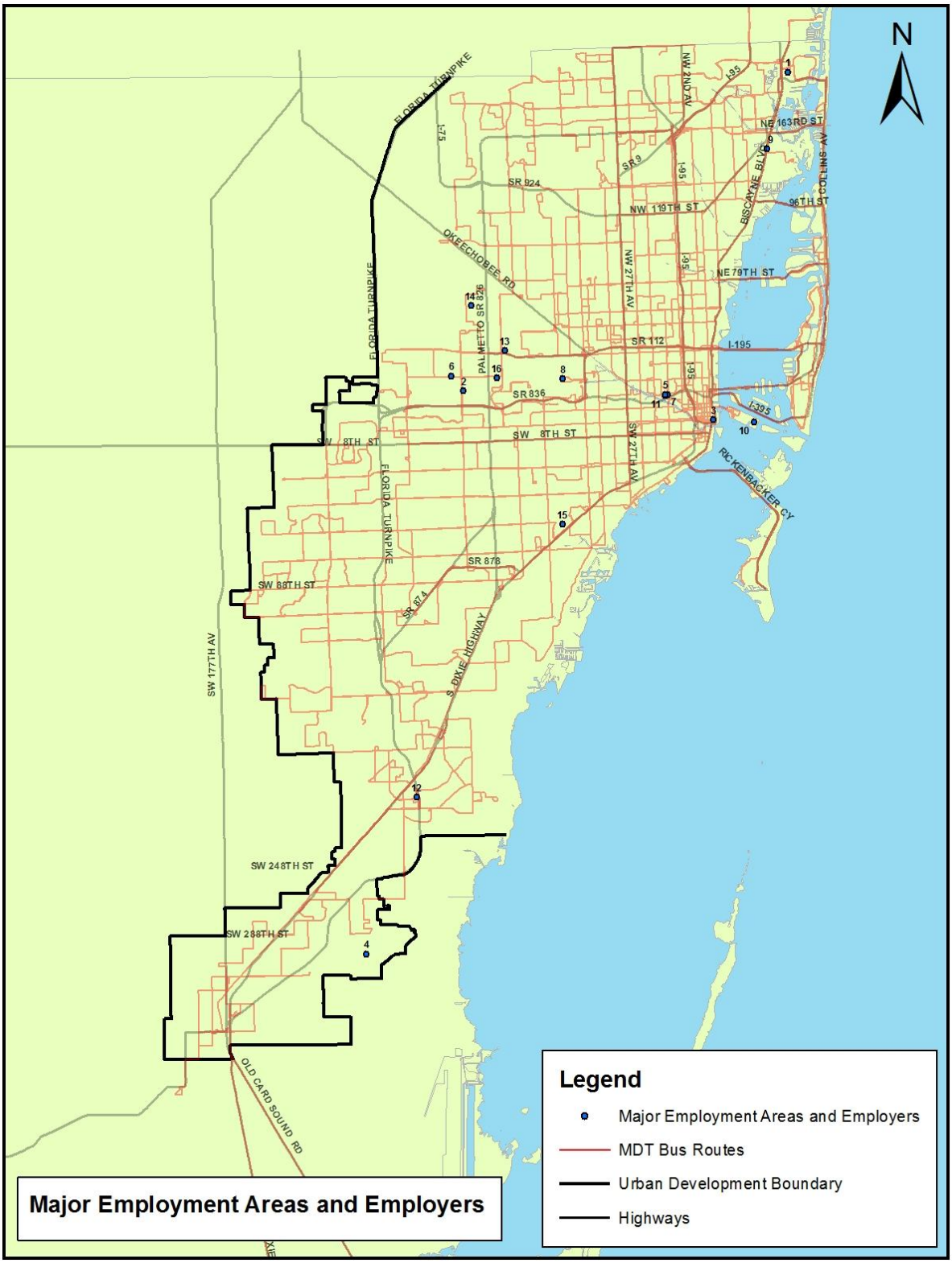
Source: Miami-Dade Transit, December 2012

Table 4-10: MDT Major Trip Generators: Major Employment Areas and Employers, December 2012

ID	MAJOR GENERATORS	ROUTES	COMMENTS
	Major Employment Areas and Employers		
1	Aventura Mall	E S 3 9 93 99 120 183	On-site service
2	Doral - Warehouse Area	36 87 95 132	Service on adjacent roadways
3	Downtown Miami	C S 2 3 6 7 8 9 11 21 24 51 77 93 95 120 207 208 211 243 246 277 500 Mover Rail	Service on local roadways and within walking distance of Government Center and Historic Overtown/Lyric Theatre stations and various Metromover stations
4	Homestead Air Reserve Base	70	Service on adjacent roadway
5	Miami-Dade Pre-Trial Detention Center	M 12 21 32 95 246 Rail	Service on local roadways and located within walking distance of Civic Center station
6	Miami-Dade Police Department	95 238	Service on adjacent roadway
7	Miami Dade State Attorney's Office	M 12 21 32 95 246 Rail	Service on local roadways and located within walking distance of Civic Center station
8	Miami International Airport	J 7 37 42 57 150 238 297	Routes restructured to serve MIC; from MIC use MIA Mover to access Airport
		133	Shuttle to Tri-Rail Sation serves Airport directly
9	North Dade Justice Center	3 75 93 135	Service on adjacent roadways
10	PortMiami	243	On-site service via local roadways
11	Richard E. Gerstein Justice Building	M 12 21 32 95 246 Rail	Service on local roadways and located within walking distance of Civic Center station
12	South Miami-Dade Government Center	1 31 35 52 52 70 137 200	Service on adjacent roadway
		38	Service on local roadway
13	Turner-Guilford Knight Correctional Center	36 73 95 132	Service on adjacent roadways
14	Unicorporated Miami-Dade County Area bounded by NW 74 St. to the North, NW 58 St. to the South between SR-826 and NW 87 Ave.	87	Service on adjacent roadway
15	University of Miami	48 56 500 Rail	Service on adjacent roadways and within walking distance of University station
16	U.S. Post Office- General Mail Facility	73 238	Service on adjacent roadways

Source: Miami-Dade Transit, 2012
Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

Figure 4-6: MDT Major Generators: Major Employment Areas and Employers, December 2012



Source: Miami-Dade Transit, December 2012

Table 4-11: MDT Major Trip Generators: Educational Centers, December 2012

ID	MAJOR GENERATORS	ROUTES	COMMENTS
	Educational Centers		
1	Barry University - Main Campus	2 9 10 19	Service on adjacent roadways
2	Barry University - Kendall Campus	104	Service on adjacent roadway
		88 288	Service on local roadway
3	Brown Mackie College	S 3 9 10 16 32 93 95	Service on adjacent roadways
		A C M 6 120	Service on local roadways
		Mover	Within walking distance of Adrienne Arsht Center Station
4	Carlos Albizu University	95 238	Service on local roadway
5	City College	Rail	Within walking distance of Dadeland South Station
6	College of Business and Technology - Cutler Bay	31 34 35 38	Service on adjacent roadway
7	College of Business and Technology - Flagler	11 51 87	Service on adjacent roadway
		7	Servcie on local roadway
8	College of Business and Technology - Kendall	71 88 288	Service on adjacent roadways
9	FIU - Center for Engineering & Applied Sciences	11 51 137 212	Service on adjacent roadways
10	FIU - Modesto A. Maidique Campus	8 11 24 71	On-site terminal with shelters
11	FIU - Biscayne Bay	75 135	On-site service
12	FIU - The Metropolitan Center	3 5 11 24 77 93 95	Service on adjacent roadways
		C L 2 6 8 9 21 51 120 207 208 277	Service on local roadways
		Mover	Within walking distance of Knight Center Station
13	FIU - The Wolfsonian	C M 120	Service on adjacent roadway
14	Florida Atlantic University	8	Service on adjacent roadway
		87	Service on local roadway
15	Florida Career College	8 11 71	Service on adjacent roadway
16	Florida Memorial College	32	Service on adjacent roadway
17	Florida National College	24 40 51	Service on adjacent roadways
18	International Fine Arts College	S 3 9 10 16 32 93 95	Service on adjacent roadways
		A C M 6 120	Service on local roadways
		Mover	Within walking distance of Adrienne Arsht Center Station
19	Johnson & Wales University	16	Service on adjacent roadway
		3 93	Servcie on local roadway
20	Jones College	88 288	Service on adjacent roadway
21	Keiser Career College	75 286	Service on local roadways
22	Keller Graduate School of Management	11 51 87	Service on adjacent roadways
23	Lindsey Hopkins Technical Education Center	M 21 77 277	Service on adjacent roadways
24	MDC - Hialeah	33 54	Service on adjacent roadway
25	MDC - Homestead	34 35 344	Service on adjacent roadways
		38 70	Service on local roadways
26	MDC - Interamerican	8 27 207 208	Service on adjacent roadways
27	MDC - Kendall	35 56 71 104 204	On-site service with shelters
28	MDC - Medical Center	M 12 21 32 Rail	Service on adjacent roadways
29	MDC - North	19 27 32 297	On-site terminal with shelters
30	MDC - West	36	Service on adjacent roadway

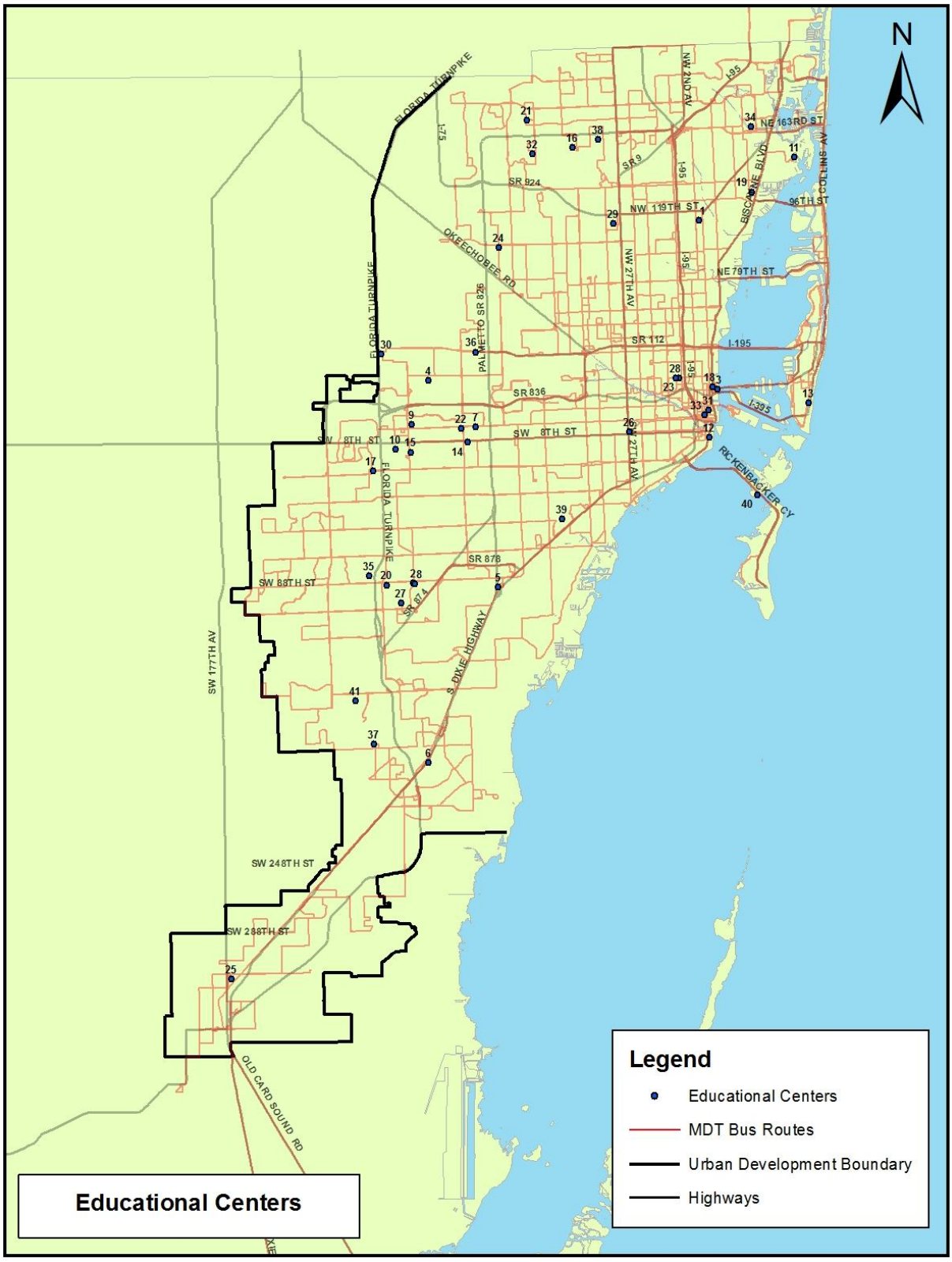
Source: Miami-Dade Transit, 2012 Note: Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

Table 4-11: MDT Major Trip Generators: Educational Centers, December 2012 (continued)

ID	MAJOR GENERATORS	ROUTES	COMMENTS
	Educational Centers		
31	MDC - Wolfson Campus	2 3 6 7 8 9 93 95 120 C S 11 21 77 207 208 211 243 246 277	Service on adjacent roadways
			Service on local roadways
		Mover	Within walking distance of College/Bayside and College North Stations
32	Miami Lakes Education Center	29 75	Service on adjacent roadway
33	New World School of the Arts	2 6 7 8 9 120 C S 3 11 51 77 93 95 207 208 211 246 277	Service on adjacent roadways
			Service on local roadways
		Mover	Within walking distance of College/Bayside Station
34	Nova Southeastern University - Dental	H	Service on local roadway
35	Nova Southeastern University - Kendall Campus	88 288	Service on local roadway
36	Polytechnic University of Puerto Rico	36 95 132	Service on adjacent roadway
37	Robert Morgan Educational Center	52	Service on adjacent roadways
		137	Service on local roadway
38	St. Thomas University	32	Service on adjacent roadway
39	University of Miami	48 56 500 Rail	Service on adjacent roadways and within walking distance of University station
40	University of Miami - Marine Campus	B	Service on adjacent roadway
41	University of Miami - South Campus	252	Service on adjacent roadway

Source: Miami-Dade Transit, 2012
Note: Rail stands for Metrorail. Adjacent refers to transit service immediately next to trip generators. Local roadways refer to transit service within walking distance (1/4 mile) of the trip generator.

Figure 4-7: MDT Major Trip Generators, Educational Centers, December 2012



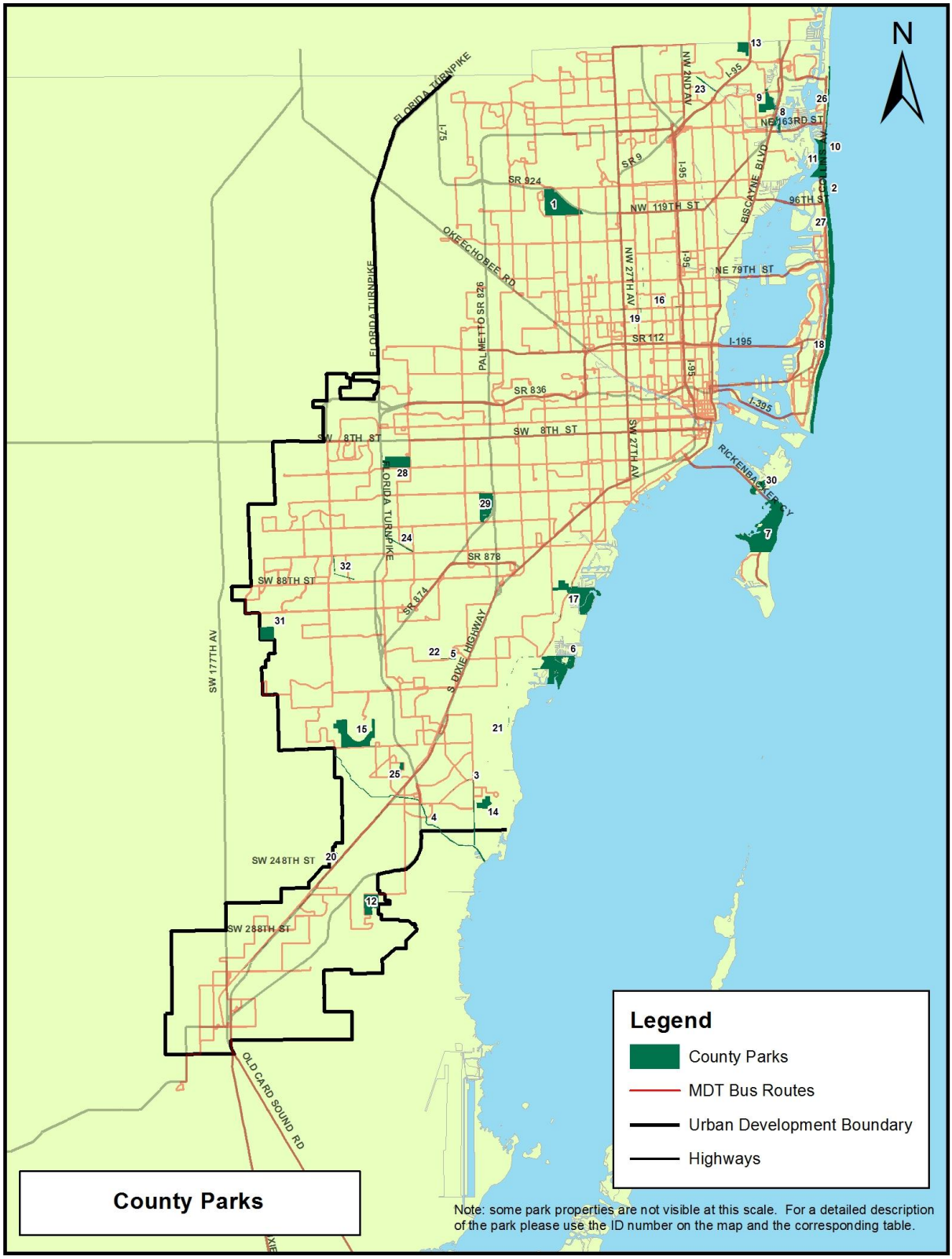
Source: Miami-Dade Transit, December 2012

Table 4-12: MDT Major Trip Generators, County Parks, December 2012

ID	MAJOR GENERATORS	ROUTES	COMMENTS
	County Parks		
1	Amelia Earhart Park	37 135	Service on adjacent roadway
		42	Service on local roadway
2	Bal Harbour Beach	H S 120	Service on adjacent roadway
		G	Service on local roadway
3	Biscayne Trail (East Side of Canal)	200 287	Service on adjacent roadway
4	Black Creek Trail (Along C1 Canal)	137	Service on local roadway
5	Briar Bay Linear Park	136	Service on adjacent roadway
6	Chapman Field Park	136	Service on local roadway
7	Crandon Park	B	Service on local roadway
8	East Greynolds Park	3 93	Service on adjacent roadway
9	Greynolds Park	3 93	Service on adjacent roadway
10	Haulover Beach	H S 120	Service on adjacent roadway
11	Haulover Park	H S 120	Service on adjacent roadway
12	Homestead Air Reserve Park	70	Service on adjacent roadway
13	Ives Estates Park	99	Service on local roadway
14	Lakes by the Bay Park	200 287	Service on local roadway
15	Larry & Penny Thompson Park	137	Service on adjacent roadway
		52	Service on local roadway
16	Martin Luther King Blvd (NW 62 ST)	32 62	Service on adjacnet roadway
17	Matheson Hammock Park	136	Service on local roadway
18	Miami Beach (from South Beach to NW 86 ST)	A C H J L M S SB Local 62 79 115 117 120 150	Service on adjacent roadway
19	Model Cities Trail	L 12 21 22 46	Servcie on adjacent roadway
		54 62 79 246	
		17	Service on local roadway
20	North South Trail	34 35 38 70	Service on adjacent roadway
		70 344	Service on local roadways
21	Old Cutler Bike Path	136	Service on adjacent roadway
22	Pinewoods Park	136	Service on local roadway
23	Snake Creek Trail	75 77	Service on local roadways
24	Snapper Creek Trail	17 75 77 99	Service on local roadways
25	Southridge Park	1	Service on adjacent roadway
		52	Service on local roadway
26	Sunny Isles Beach	E S 120	Service on adjacent roadway
27	Surfside Beach	H S 115 117 120	Service on adjacent roadway
28	Tamiami Park	8 24 71	Service on adjacent roadway
29	Tropical Park	40 56	Service on adjacent roadway
30	Virginia Key	B	Service on local roadway
31	West Kendall District Park		None
32	Winston Linear Park	88	Service on adjacent roadway
		288	Service on local roadway

Source: Miami-Dade Transit, 2012

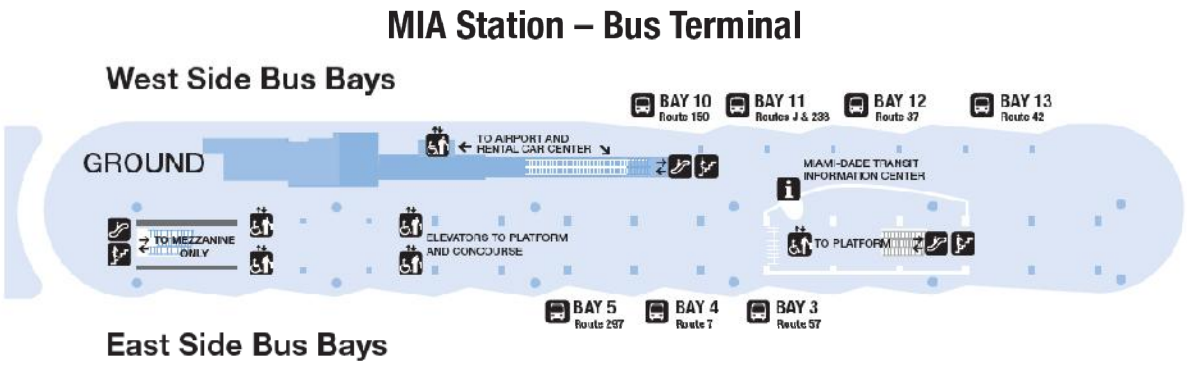
Figure 4-8: MDT Major Trip Generators, County Parks, December 2012



Source: Miami-Dade Transit, December 2012

Objective: Increase and improve transit access to Miami International Airport (MIA) and the PortMiami: The transit service route miles within a ¼ mile of MIA and the PortMiami are presented in Table 4-13. On July 22, 2012 Metrobus Routes J, 7, 37, 42, 57, 150 (Airport Flyer) and 238 were realigned from the Airport Terminal to the new MIA Metrorail Station. Route 297 (27th Avenue Orange MAX) began service on July 22, 2012 and provides a direct connection to the new MIA Metrorail Station from the Broward County Line along NW 27th Avenue. Riders can use the free MIA Mover, located on the Connector Level (4th floor) of the new MIA Metrorail Station to travel to the Airport Terminal.

The MIA Metrorail Station and MDT bus terminal are components of the Miami Intermodal Center which consolidates various modes of transportation in one location and allows for seamless transfers between modes as well as access to the Airport Terminal. The Route 133 schedule complements Tri-Rail's schedule and runs between the Hialeah Market Tri-Rail station and the Airport Terminal, with selected trips also serving the Tri-Rail Metrorail station. This route will be in effect until the new airport Tri-Rail station opens in late 2013, adjacent to the MIA Metrorail station.



Metrobus Route 243, the Seaport Connection, connects PortMiami to downtown Miami and to MDT's Metrobus and Metrorail systems.

Table 4-13: Transit Service Route Miles within ¼ mile of MIA and PortMiami

Facility	Transit Service Route Miles within 1/4 mile
Miami International Airport	61
PortMiami	18

Source: Miami-Dade GIS, 2012

Objective: Implement projects that support economic development and redevelopment areas: A number of corridors were identified by Miami-Dade County as potential redevelopment areas based on their older development and infrastructure. As Table 4-14 shows, MDT provides service on multiple routes to most of these areas.

Table 4-14: Transit Route Miles within ¼ mile of Redevelopment Areas

Redevelopment Areas*	Transit Service Route Miles within 1/4 mile
East Overtown	79.9
North Miami	64.5
City of Miami - OMNI	50.5
North Miami Beach	44.7
Florida City	29.8
Miami Beach	27.6
7th Avenue Corridor	24.1
West Perrine	23.8
Naranja Lakes	15.8
Homestead	14.7
Midtown Miami	12.4
South Miami	10.3
NW 79th Street	54.6

Source: *Information taken from the Miami-Dade County's GIS webpage, 2012

Objective: Apply transportation and land use planning techniques, such as transit-oriented development (TOD), that support intermodal connections and coordination: Policy initiatives do exist within the CDMP Land Use element and Transportation Element related to development and population density.

4.4.5 Goal 5: Preserve the Environment and Promote Energy Conservation

Objective: Reduce fossil fuels consumption through the consideration of alternative fuel vehicle technology: In an innovative move to improve energy efficiency and reduce operational costs, MDT has electrified key accessories on eighteen (18) 40-foot diesel/electric hybrid buses - becoming one of the first transit agencies in the nation to electrify bus accessories. This modification is expected to make the buses 25 percent (25%) more fuel efficient or 2,471 gallons and estimated carbon reduction of 24.3 metric tons (53,612 pounds) of CO_2 per year are projected per hybrid bus. The estimated carbon reduction per bus for the proposed project during the 15 years expected life of the bus is 407.7 metric tons of CO_2. This calculation was based on CO_2 emissions from a gallon of diesel equal to 22.2 pounds/gallon (Source: U.S. Environmental Protection Agency Web site).

As a Chicago Climate Exchange member, Miami-Dade County voluntarily agreed to annual emissions reductions. Miami-Dade Transit currently operates 43 diesel/electric hybrid buses of which 25 are 60-foot articulated buses that use a B5 blend (5 percent) of Biodiesel with Ultra Low Sulfur Diesel Fuel in its bus fleet. Biodiesel is non-toxic, biodegradable, and suitable for sensitive environments. The hybrid buses are equipped with emissions gas recirculation (EGR) components, proven to reduce the NOx and carbon emissions up to 80 percent (80%). The urea (DEF) exhaust after treatment technology will achieve additional NOx reductions.

Several major transit agencies across the U.S., such as Washington Metropolitan Area Transit Authority (WMATA) have successfully incorporated Compressed Natural Gas (CNG) buses and infrastructure into their transit systems in order to achieve operational cost savings. MDT is

working in conjunction with other County Departments on a priority initiative to assess the feasibility and financial impact of transitioning to CNG fuel in its bus and heavy truck fleets at various locations and to develop a comprehensive implementation strategy that will optimize cost savings.

MDT is also adding LED lighting at park-and-ride lot locations.

Objective: Promote transit service projects that support urban infill and densification: MDT operates transit service primarily within the urban infill area with the exception of various areas throughout the county that are not fully developed (Table 4-15).

Table 4-15: Transit Route Miles Within ¼ mile of the Route Alignment

Other	Transit Service Route Miles within 1/4 mile	
	2011	2012
Urban Infill Area (UIA) Boundary	1,412	1,417

Source: Miami-Dade GIS, 2012

4.4.6 Goal 6: Enhance the Integration and Connectivity of the Transportation System, Across and Between Modes and Transit Providers, for People and Freight

The number of transit service route miles within a ¼ mile of Transit Analysis Zones (TAZ's) with a high proportion (20% or higher) of elderly is about 640 miles. This indicates that areas with a high concentration of elderly are well served by transit service and have full access to the Metrobus system, with some areas also well served by Metrorail.

4.4.7 Goal 7: Optimize Sound Investment Strategies for System Improvement and Management/Operation

Objective: Optimize operations and maintenance expenses:

The 2012 cost per revenue mile of MDT's Metrobus service is $10.59 as compared with the 2011 cost per revenue mile of $10.58.

The 2012 cost per revenue mile of MDT's Metrorail service is $11.40 as compared with the 2011 cost per revenue mile of $12.39.

The 2012 cost per hour of MDT's Metrobus service is $114.96 as compared with the 2011 cost hour mile of $114.31.

The 2012 cost per hour of MDT's Metrorail service is $250.76 as compared with the 2011 cost per hour of $248.39.

Objective: Identify Public, Private Partnership opportunities: Miami-Dade Transit is involved in a public private partnership for three projects. Property owned by the FDOT located adjacent to the intersection of the Homestead Extension of the Florida Turnpike (HEFT), SR 836 and NW 12th Street has been identified as a strategic location for a Transit Hub with a park-and-ride facility. This transit hub would support the SR 836 Enhanced Bus Service project and provide a potential terminus or stop for several local bus routes serving the Dolphin Mall and nearby cities of Sweetwater and Doral. This site will be further evaluated for its potential to support a Transit Oriented Development (TOD).

The second project is an eight-acre vacant parcel on the SW corner of SW 8th Street SW 147th Avenue which is identified as a park-and-ride location for the SR 836 Express Enhanced Bus Service project. This facility lot will also provide strategic TOD opportunities.

The third project involves a 14-acre vacant parcel adjacent to the intersection of the Florida Turnpike (HEFT) on NW 215th Street and NW 27th Avenue. This parcel has been identified as a park-and-ride location for the NW 27th Avenue Enhanced Bus Service project. This facility will provide strategic TOD opportunities. Section 4.2.14 provides additional detail on MDT's existing and future transit joint development and TOD projects.

Objective: Align MDT priorities and deliverables with available funding and resources: Miami-Dade Transit continually evaluates operational and capital priorities and assesses the viability of securing various funding sources.

4.4.8 Goal 8: Maximize and Preserve the Existing Transportation System

Objective: Continue to examine the provision and utilization of special-use lanes on the existing system for transit use: The existing special use lanes used by MDT consists of the South Miami-Dade Busway which is approximately 20 miles in length. In 2010, the managed lanes were implemented on I-95 and increased transit's usage of Toll Managed Express Lanes from the operation of 95 express service between Broward County and downtown Miami.

In addition, FDOT is studying a system of managed lanes for southeast Florida on which express transit routes could be implemented.

Objective: Identify and implement the best available technologies and innovations to improve the reliability and efficiency of the transportation system: Miami-Dade Transit continuously works to assess Intelligent Transportation System (ITS) needs through an organization of prioritized ITS projects for deployment that conform to regional ITS architecture while reflecting the local needs and preferences for transit operations. Newly implemented ITS projects include transit signal priority, wireless services, and PDAs with real time next bus arrival information.

Objective: Upgrade and maintain existing transit infrastructure and facilities in a state of good repair: Miami-Dade Transit has developed a procedure for identifying, evaluating, prioritizing, and programming capital improvement projects that will upgrade and maintain the existing transit infrastructure and facilities. This Infrastructure and Renewal Program (IRP) is updated annually to assure the existing transit system and facilities remain in a state of good repair.

Objective: Maintain the operational functionality of transit vehicles to maximize reliability: MDT experienced 0.08 percent (.08%) missed pullouts in FY 2012. The current goal set forth at the agency is zero percent. While even a single missed pullout can mean inconvenience and discomfort for hundreds of passengers, an average of less than one missed pullout per day is very good performance for a transit system of the size of MDT.

Metromover plans to improve the adherence to its preventive maintenance program by implementing a mileage based maintenance program. Currently in use is a time based program requiring vehicle inspections to be performed regardless of the mileage. Implementation of a mileage based program will more effectively utilize the agency's man power by ensuring that all preventive maintenance inspections are completed within the allotted time frames.

The current goal is set at a 90 percent (90%) adherence and according to the last fiscal year, Metromover achieved a compliance rate of 79 percent (79%) (Table 4-16). The preventive maintenance program identifies mechanical issues before failures result and greatly contributes to MDT meeting its performance goal for this measure.

Table 4-16: Percent of Adherence to Preventative Maintenance Program by Mode

	Metrobus	Metrorail	Metromover
FY 2011/2012	98%	97.1%	78.8%
FY 2010/2011	98.9%	100%	89%
Goal	90%	90%	90%

Source: Miami-Dade Transit, as of March 2013

Another measure of service reliability is the measure of the mean distance between service disruptions (Metrorail) or breakdowns (buses). Disruptions are described as five (5) minutes or more impact to the customer. Table 4-17 presents the mean number of miles for a breakdown according to MDT transit mode.

Table 4-17: Mean Distance between Failures by Mode

	Metrobus	Metrorail	Metromover
FY 2011/2012	4,459	42,410	5,157
FY 2010/2011	4,732	47,153	6,287
Goal	4,000	39,000	6,000

Source: Miami-Dade Transit, as of March 2013